photocopy of brief chronology of the Russian Revolution events of Oct.-Dec. 1917.

Conte, Francis, ed. Great Dates in Russian + Soviet History. New York: Facts on File Inc, 1994.

different Calendars

A NOTE ON THE RUSSIAN CALENDAR

Two Systems of Dating

This volume uses the double dating system that was employed in Russia for centuries. Until October 5, 1582, the Julian calendar was used throughout the Christian world. On this date, the Roman Catholic Church instituted a new calendar, the Gregorian calendar (after Pope Gregory XIII), a system that was 10 days ahead of the Julian calendar. With these two systems in effect, the date under the Julian calendar (called the "old style") was always indicated first, followed by the date under the Gregorian calendar (the "new style"). The discrepancy between the two calendars was 10 days on Friday, October 5 (15), 1582. The discrepancy increased to 11 days in February 1700, to 12 days in February 1800, and to 13 days in February 1900.

New Year's Day: Until 1492, the calendar year in Russia began on either March 1 or September 1. After 1492, in accordance with the tradition of the Byzantine Church, the first day of the year was fixed as September 1. By decree of December 15, 1699, Peter the Great transferred the first day of the calendar year to January 1, beginning with January 1, 1700.

Change of Era

By the same decree, Peter the Great substituted the Christian Era for the Byzantine Biblical Era that began with the date deemed to mark the creation of the world, fixed at September 1, 5509 B.C. To correspond with the Christian Era, it is necessary to subtract 5509 years for dates between September 1 and December 31, and to subtract 5508 years for dates between January 1 and August 31. In addition, in the texts of this period, the millennium is rarely indicated.

Change of Calendar

Despite all these other changes, Peter did not abandon the Julian Calendar, which remained the official calendar of the Russian Church and state until February 1, 1918. On this date, the Soviet government adopted the Gregorian calendar, but the Russian Orthodox Church continues to use the Julian calendar.

July. The economic and social situation of the country deteriorates. Output declines (metallurgical production drops by 40 percent and textile production drops by 20 percent from February to July). Russia experiences inflation, unemployment is aggravated by lockouts, and violence and pillaging increase in the countryside.

August 15 (28). A council of the Russian Orthodox Church convenes in Moscow.

Civilization and Culture

1917

Andrei Bely, *Revolution and Culture.* Simeon Frank: *The Soul of Man: An Introduction to Philosophical Psychology.* The first issue of the philosophical review *Thought and Speech,* edited by the neo-Kantian G. Shpet, is published.

Chapter 22 **1917**

Lenin and the October Revolution

Unlike the February Revolution, the October Revolution was the result of a careful plan by the Bolsheviks. The planning was guided by Lenin, who, after encountering some strong resistance, succeeded in winning his comrades over to his views. On October 24 and 25 (November 6 and 7) several thousand Red Guards, as well as soldiers and sailors won over by the Bolsheviks, surrounded the capital and occupied strategic points within it (train stations, arsenals, warehouses, the Central Telegraph Office, the State Bank headquarters). The Military Revolutionary Committee, the guiding force behind the Bolshevik insurrection, proclaimed the overthrow of the Provisional Government on October 25 (November 7).

In the predawn hours of October 26 (November 8), following the firing of a warning cannonade by the cruiser *Aurora,* the insurgents stormed the Winter Palace, to which the ministers of the Provisional Government had withdrawn. The insurgents easily overcame the resistance of the young military cadets and the "women's battalion" that constituted the sole defense of a government that had lost its authority. While this was taking place, the Second Congress of Soviets was being presented with the fait accompli. Dominated by the Bolsheviks, the Congress of Soviets ratified the insurrection and, as its final acts, authorized the creation of a new Council of People's Commissars and approved decrees on peace and land.

Within a few days it became clear that the "Great October Revolution," which had succeeded almost without a shot having been fired, represented a total break with the past. For the Bolsheviks, however, several years of unremitting struggle would be required before they were finally able to establish their absolute power.

Politics and Institutions

1917

September 29 (October 12). In the Bolshevik newspaper *Rabochii put',* Lenin publishes an article entitled "The Crisis Has Matured." His appeal for an immediate insurrection clashes with the view of the majority of Bolsheviks.

October 7 (20). The "Pre-Parliament" convenes. The Bolsheviks walk out of the opening session.

Lenin secretly returns to Petrograd from Finland.

October 10 (23). A secret meeting of the Bolshevik Central Committee is

held. With the help of Yakov Sverdlov, who reports that a military plot is being hatched in Minsk, Lenin secures a vote favoring an insurrection (10 members of the Central Committee are in favor, and 2—Lev Kamenev and Grigori Zinoviev—are against). A Political Bureau that includes Lenin, Zinoviev, Kamenev, Leon Trotsky, Grigori Sokolnikov and Andrei Bubnov is established.

October 12 (25). The Petrograd Soviet establishes a Military Revolutionary Committee in order to defend the city against the Germans. The Bolsheviks, led in this effort by Trotsky, transform the Military Revolutionary Committee into the instrument of the armed uprising. The Committee calls on the army regiments in the capital, the Red Guards and the Kronstadt sailors to rally to it.

October 16 (29). A meeting of an enlarged Bolshevik Central Committee approves Lenin's call for an insurrection. Advance preparation for the uprising is assigned to the Bolshevik Military Organization, which will act in the name of the Party in coordination with the Military Revolutionary Committee of the Petrograd Soviet.

October 18 (31). An article by Kamenev that is hostile to the premature unleashing of an insurrection is published in Maxim Gorky's newspaper *Novaya Zhizn* ("New Life").

October 22 (November 4). The Military Revolutionary Committee of the Soviet declares that only orders from the General Staff that have been countersigned by the Committee will be considered valid.

October 24 (November 6). The Soviet breaks openly with the Provisional Government, which had attempted to bar the printing of Bolshevik newspapers and had called for reinforcements to defend Petrograd. Bolshevik forces smash the government seals on the Party's press and, during the day, they prevent government troops from raising the city's bridges.

The insurrection begins. During the night of October 24–25 (November 6–7) the Red Guards, together with soldiers and sailors who have rallied to the Bolshevik cause, take control of the capital without serious difficulty. Lenin arrives at the Smolny Institute, the headquarters of the insurrection, where the Second Congress of Soviets is meeting. Meanwhile, the ministers of the Provisional Government withdraw to the Winter Palace, and Alexander Kerensky flees in search of reinforcements.

October 25 (November 7). Petrograd (with the exception of the Winter Palace) is in the hands of the insurgents. The Soviet's Military Revolutionary Committee proclaims the overthrow of the Provisional Government and takes power.

Night of October 25–26 (November 7–8). With the support of the cruiser *Aurora*, the insurgents attack the Winter Palace, which falls into their hands at 2:30 in the morning.

The Second Congress of Soviets convenes at the Smolny Institute (there are approximately 390 Bolsheviks and 150 Left SRs [Socialist Revolutionaries] among the 650 deputies). A new Presidium with a Bolshevik majority is elected. Mensheviks and Right SRs hostile to the seizure of power walk out of the Congress. The Congress approves the insurrection and issues the manifesto "To All Workers, Soldiers and Peasants."

October 26 (November 8). The Bolshevik insurrection begins in Moscow.

After violent combat, the insurgents will take the Kremlin on November 3 (16).

The City Duma of Petrograd establishes an All-Russian Committee for the Salvation of the Country and of the Revolution, made up of Mensheviks and Right SRs hostile to the Bolsheviks.

Night of October 26–27 (November 8–9). The last meeting of the Second Congress of Soviets is held. The Congress approves the formation of the Council of People's Commissars (*Sovnarkom*), a new, all-Bolshevik government. Presided over by Lenin, the government also includes Trotsky (people's commissar for foreign affairs), Stalin (people's commissar for nationalities), Aleksei Rykov (people's commissar for the interior) and Anatoli Lunacharsky (people's commissar for public instruction). A new Central Executive Committee of the Soviets (VTsIK), with a majority of Bolsheviks and Left SRs, is established. Decrees on peace and on land, drafted by Lenin, are adopted.

October 27 (November 9). An offensive is launched against Petrograd by Kerensky and General Peter Krasnov. It will be halted at Pulkovo Heights on October 30 (November 12).

October 28 (November 10). A decree on the press is published. Counterrevolutionary newspapers are banned.

October 29 (November 11). An uprising of cadets from military schools in Petrograd is put down.

The All-Russian Committee of Railway Workers (*Vikzhel*) issues an ultimatum demanding the formation of a socialist coalition government.

October 31 (November 13). The Soviet in Baku takes power.

November 1 (14). A resolution of the Bolshevik Central Committee formalizes the collapse of talks with other socialists on the formation of a coalition government.

At Gatchina, Bolshevik representatives succeed in rallying the troops assembled by Kerensky and Krasnov to the cause of the revolution. Kerensky eludes capture. Although Krasnov is arrested, he will soon be released and will join the counterrevolutionary forces in the Don region.

The Soviet in Tashkent takes power. Thus far, Soviet authority has been secured in Iaroslavl, Tver, Smolensk, Nizhni Novgorod, Kazan, Samara, Saratov, Rostov and Ufa.

November 2 (15). The "Declaration of Rights of the Peoples of Russia" is issued. It proclaims the principles of equality and popular sovereignty, along with the right of self-determination, including secession.

November 4 (17). In an act of protest against the Party's refusal to form a coalition government, several Bolsheviks (including Kamenev, Zinoviev and Rykov) quit the Central Committee of the Party and the Council of People's Commissars. They will shortly retake their positions on these bodies.

November 7 (20). The Ukrainian *Rada* issues its Third Universal. Although the law proclaims a Ukrainian People's Republic, it does not formally break with the Russian republic; instead, it calls on Russia to transform itself into a federation.

November 8 (21). Yakov Sverdlov is elected to head the Central Executive Committee of the Soviets (VTsIK).

November 10–25 (November 23–December 8). An emergency Congress of Peasants' Soviets meets in Petrograd. Dominated by SR delegates, it approves a decree on land tenure and sends 108 of

its members to the Central Executive Committee of the Soviets.

November 12 (25). Elections for a Constituent Assembly begin. The vote will be 58 percent for the SRs, 25 percent for the Bolsheviks (who nonetheless dominate the voting in Petrograd and Moscow as well as among the troops in the west and north), and 13 percent for the Constitutional Democrats (Cadets) and assorted "bourgeois" groupings.

November 15 (28). A Transcaucasian Commissariat is established in Tiflis. It will organize resistance to the Bolsheviks in Georgia, Armenia and Azerbaijan.

November 19–28 (December 2–11). In Petrograd, the First Congress of Left Socialist Revolutionaries meets and transforms itself into an independent party.

November 20 (December 3). Lenin and Joseph Stalin call on the Moslems of Russia and of the East to liberate themselves from all forms of oppression.

In Ufa, a Moslem National Assembly meets to prepare for national cultural autonomy for Russia's Moslems.

November 24 (December 7). Finland declares its independence from Russia.

November 26–December 10 (December 9–23). The Second Congress of Peasants' Soviets meets in Petrograd. It is dominated by Left SRs who support the Bolsheviks' policies.

November 28 (December 11). A decree is issued calling for the arrest of the leaders of the Cadet party, who are accused of organizing a civil war.

November–December. The first counterrevolutionary armies are formed. Generals Mikhail Alekseev and Lavr Kornilov create a "volunteer army" in Novocherkassk; in December they will form a "triumvirate" with General Alexei Kaledin, the hetman of the Don Cossacks.

December 2 (15). The Cadets are barred from the Constituent Assembly.

Rostov is seized by the volunteer army.

December 4 (17). An ultimatum to the Ukrainian *Rada* demands that it recognize Soviet power in the Ukraine.

December 7 (20). The Cheka (the All-Russian Extraordinary Commission for Struggle against Counterrevolution, Sabotage and Speculation) is created and placed under the direction of Felix Dzerzhinsky.

December 9 (22). An accord between the Bolsheviks and the Left SRs permits members of the latter party to enter the government. The Left SRs are given the Agriculture, Justice, and Post and Telegraph Commissariats.

December 11 (24). The First Pan-Ukrainian Congress of Soviets opens at Kharkov. Dominated by the Bolsheviks, it will proclaim the Ukrainian Soviet Republic the next day.

December 13(26). Lenin's "Theses on the Constituent Assembly" is published in *Pravda*. He declares that the body must submit itself entirely to the authority of the soviets.

December 18 (31). The Council of People's Commissars recognizes the independence of Finland.

World War I and Foreign Affairs

1917

October 26 (November 8). A decree on peace is issued. It calls on all belligerents to begin immediate talks aimed at arriving at a just and democratic peace without annexations or reparations.

November 1 (14). Following the flight of Kerensky, General Nikolai Dukhonin becomes commander-in-chief of Russian forces.

November 8 (21). In a note to all belligerents, Trotsky, the people's commissar for foreign affairs, proposes that they begin negotiations to end the war.

November 9 (22). General Dukhonin is dismissed for refusing to engage in armistice talks with the Germans. He is replaced by Ensign Nikolai Krylenko, the people's commissar for war. The Bolsheviks announce their intention to publish the secret treaties relating to the war.

November 14 (27). Germany accepts Russian's offer of armistice negotiations.

November 20 (December 3). Armistice negotiations between Russia and the Central Powers (Germany, Austria-Hungary, Bulgaria and Turkey) are convened at Brest-Litovsk.

Krylenko assumes control of the General Staff headquarters in Mogilev. General Dukhonin is murdered by soldiers and sailors.

December 2 (15). A 28-day armistice is agreed to at Brest-Litovsk.

December 9 (22). Peace talks open at Brest-Litovsk. Germany is represented by Minister of Foreign Affairs Richard von Kühlmann and General Max von Hoffmann, Austria by Minister of Foreign Affairs Ottakar Czernin. The Soviet delegation, led by Adolf Ioffe, calls for a peace treaty that does not include annexations or reparations but that respects the right of self-determination.

December 27 (January 9). Following a 10-day interruption negotiations resume at Brest-Litovsk. (The Soviets had insisted on the interruption in order to allow the Entente Powers—principally England, France, Italy and the United States—the opportunity to join the talks; they refused to so.) The Soviet delegation is now led by Trotsky.

Economy and Society

1917

October 16–19 (October 29–November 1). A conference of proletarian educational and cultural organizations meets in Petrograd under the leadership of Anatoli Lunacharsky. In November, the group will adopt "Proletkult" as its official name.

October 26 (November 8). A decree on land is issued: Large estates are expropriated without compensation, and land is placed under the control of agrarian committees and peasants' soviets. In many cases, the decree merely legalizes the de facto situation in the countryside. On average, the land expropriation adds one desyatina (2.7 acres) of land to each peasant family plot.

October 29 (November 11). A decree is issued establishing an eight-hour work day.

November 5 (18). Metropolitan Tikhon is elected patriarch of Moscow (the patriarchate had just been reestablished by a council of the Orthodox Church).

November 7 (20). The bread ration in Petrograd is reduced to 150 grams.

November 9 (22). A decree on accident insurance is issued.

November 10 (23). Grades and inequalities of rank within the civil administration are abolished.

November 14 (27). A decree establishes worker control in all industrial enterprises with more than five employees. Control will be exercised through elected committees under the authority of a national council.

November 22 (December 5). The judicial system is reorganized: Judges are to be elected, and revolutionary tribunals will be established.

December 2 (15). The Supreme Council of National Economy (VSNKh) is established. It is given overall control of the national economy and supervisory power over provincial councils (*sovnarkhozes*).

December 11 (24). A decree on unemployment insurance is issued.

December 14 (27). Banks are nationalized.

December 15 (28). The Russian-Belgian Metallurgical Society is nationalized.

December 18 (31). Civil marriages are instituted; the state is secularized. A decree on divorce is issued.

December 22 (January 4). A decree on health insurance is issued.

December 27 (January 9). The Putilov factories are nationalized.

Chapter 23 **1918–1920**

The Civil War and War Communism

Although the seizure of power in Petrograd had been accomplished with relative ease, the new Soviet regime would face widespread opposition for more than three years.

The Treaty of Brest-Litovsk, signed in March 1918, ended Russia's participation in World War I, but the conditions imposed by Germany were quite burdensome to the fledgling Soviet state. On the domestic scene, outbreaks of resistance to the new regime, while at first localized, soon engulfed the country in a long civil war between the "Whites" and the partisans of Soviet authority.

Two factors made the prosecution of the Civil War more difficult: the growth of nationalist unrest on the part of the non-Russian peoples of the former empire, and the military intervention of Russia's former Allies on the side of the Whites. The scale of the Allied intervention would increase following Russia's separate peace at Brest-Litovsk, and then further intensify after the Allies concluded a general armistice with the Central Powers in November 1918. The White forces, however, were poorly coordinated along immense fronts, divided over the future of Russia, and heavily dependent on the Allies. Although the Whites were largely defeated by 1920, the Polish-Soviet War and Peter Wrangel's last offensives in the south would prolong the Civil War for several months.

In order to mobilize all of their power for this merciless struggle, the Bolsheviks chose to establish a regime of political and economic dictatorship that brooked no concessions. They created their own secret police (the Cheka) in December 1917, dissolved the Constituent Assembly (in which they were a minority) in January 1918, and methodically eliminated all of their opponents (including the Socialist Revolutionaries, or SRs). While they legitimized the "Red Terror" as necessary to defend the Revolution, the Bolsheviks also consolidated their monopoly on power by writing a constitution for the Russian Socialist Federal Soviet Republic (RSFSR) that guaranteed them a leading role.

In the economic sphere, "War Communism" entailed an intensification of the Bolshevik's economic policies of 1917, the primary objective of which had been to supply provisions to the military and the citizenry. In pursuit of that end, nationalization of industry was expanded and labor became obligatory. The brutal actions taken to requisition provisions in the countryside soon pitted the new central government against a peasantry that sought to defend the gains it had made in 1917.

1 Sept. '95

Dear Marsh--

I handed over the Bucking the Sun manuscript to you with such alacrity the other night that I didn't have a chance to include a note about things I'd like you to particularly peruse. The two that come to mind because they're adapted from actual history are:

conceptually no prob, if deceased

--The Communist funeral, pp. 567-574. There was an incident of this sort, where the Bolshevik ex-sheriff eulogized his daughter who had died of appendicitis.

OK

p. 774

--The Corps of Engineers officer who in WWII killed himself after losing a courier-case. I don't know that there was an actual incident like this, but I heard the story from someone who'd been at Fort Peck.

The only other brushes with actuality I can think of is that the dam slide was deemed to have been caused by the treacherous Bearpaw shale, but so far as I can find there was no actual job called "fillmaster," such as I invented for Owen and thus put some of the slide responsibility on; and I think we talked, when I was starting the book, about the point that I got the nickname for a peroxided taxi-dancer/prostitute--"Proxy"--from oral history reminiscenes of Fort Peck, but there seem to have been more than one with that nickname; i.e., it'ssems to have been a general usage like "Blondie" or "Red" for distinctive hair types.

check o term fillmaster; historical on-going character

And of course anything you spot, I will harken to with interest. We'll be back from our trip in mid-Sept., so I'll give you a call the week of Sept. 18, okay?

Keep low.

Ivan

son's back, on the way out of the thicket. Hugh waited a moment, then called out:

"There is one thing you can tell me."

Owen almost did not turn around, then decided he wouldn't give the Old Man the satisfaction of seeing him stalk off. He swung around and faced him again.

Hugh gestured, a little fling of his hand, at the patch of brush which might keep him chopping for eternity.

"Why're we at this, particularly?"

"Nobody told you? You're building a boatyard."

"And I'm the wee man who lives under the dog dish, too." Acidulous just that quick, Hugh returned to belting at willows with his axe.

———

After the first hour or so, when the sawyers were starting to make a dent in the cottonwood grove, Bruce gravitated at once to where the D-4 Caterpillar was going to skid out the big stumps. Each time, a cable with a logchain hook had to be noosed around the protruding trunk remnant--called setting the choker--and then the Cat clanked away with the stump uprooted and dragging behind. The foreman here, Grimwade, was also

Is this the right term? "cutters"[?]

Ivan: This is an awfully small Cat for big stumps. They might have used dynamite ("powder") to split the stumps before attempting to pull them out.

* [see reverse side]

I worked on a USFS right-of-way job & we used powder to do just as I described. Here in the NW the task is that of the "powder monkey."

(certain)

* I am virtually a D-4 could not pull those stumps. I worked behind a D-6 and we pulled stumps (Douglas fir and white fir) only after they had been dynamited -- even small ones!

I don't know if choker setting is the proper term for the physical place you are writing about. In timber country in the NW that is the proper term, but cottonwood in the ripearean zone along the Missouri -- I don't know.

brushcutting
keeping an eye on the ~~brush~~ gang and so was on horseback to commute between the two. Bruce brazened right up beside Grimwade's stirrups and asked if he could have a crack at choker setting ~~the choker~~. In no time he showed he was quick and sure at the task, and Grimwade nodded and rode off."

choker setting is not learned this quickly! And cat skinners are usually disdainful and mean toward novices. I'll tell you sometime my tales of Tom Newman.

I worked my ass off a full summer (1963) and still never satisfied the boss. In the real world of logging there is no "fast vote of confidence."

This fast vote of confidence made Bruce strut a little, acting as if it was mostly his own doing when the hundred-year-old stumps erupted from the ground. The only drawback to the job, he found, was trudging after the stump to the burn pile, in order to unhitch the choker. He began catching hold of each upended stump's roots and jumping on to ride it like a bucking plough as it was being towed. The ride was rough, as each crooked comet of wood bounced across the ground, but that was the major part of the fun. Hopping off when the stump reached the pile to be burned, Bruce would undo the choker and ride the [drawbar] of the Caterpillar back to the next stump. The other guys on the crew were laughing and calling out about Bruce not even needing a saddle, which confirmed to him that he had a pretty slick system going.

A D-4 Cat wouldn't begin to even loosen such a stump!

a farmer's term; not logger lingo

This is impossible because the winch spool would be in the way. Usually you climb up and stand on a platform beside the driver.

Until he bounded down from a stump-ride and there was Grimwade

frowning from his horse perch.

"What's your button number?"

"A-1," joked Bruce, still jaunty.

Grimwade leaned down in his saddle and inspected Bruce numerically. "The point of this whole shitaree is to give you guys jobs, not for you to figure out ways to break your neck. Any more antics like riding stumps, Little Mister 57 Different Varieties of Flavors, and you're going to draw your walking papers instead."

Off rode Grimwade, and now the rest of the crew razzed Bruce unmercifully, offering to lay bets with him on how quick he was going to make history as the first man fired from Fort Peck. Bruce's face burned as he marched behind the skidding stumps. He watched his chance. At noon, when Grimwade tied the reins of his horse to the bumper of a crew truck and ducked into the cook tent for lunch, Bruce slipped over, took the lariat off the saddle and slung it on his shoulder, then quickly uncinched the saddle and lifted it off the horse. He had singled out an especially tall young sapling, poking out of a thick tangle of willows, and ploughed his way through the brush carrying the saddle. When he

reached the sapling, he formed a dab loop in the lariat and on his fifth upward toss caught the top of the sapling. Drawing the limber tree over in a bowlike bend as far as he could, Bruce knelt on the saddle while he knotted the taut lariat in through the hole beneath the saddlehorn. Then he carefully got off the saddle while holding down the rope and tree. Then jumped back and let them all fly, the sapling springing back into place and catapulting the saddle up with it, like a fish on a line. Grimwade's saddle swayed there a satisfying twenty feet in the air amid the jungle of brush.

#

After being fired, Bruce barely had his half-day's wages in his pocket before Owen collared him.

"I hear you treed Grimwade's saddle for him."

Bruce couldn't help grinning, but changed his face when he saw Owen's. "He had it coming, Ownie. He jumped on me for no real reason at all, so I--"

Owen hit him above his left ear, an open-handed swat but enough of a clout to rattle Bruce's brainbox.

"Hey! What!--" Bruce's impulse to hit back wrinkled away under

19 April '95

Dear Bill--

Thanks for taking time to cast an eye over this for me. The choker-setting--and you're to tell me if that's even the best phrase to use for this version of things--involves only these few pages, and the background is this:

It's the last week of October of 1933 and guys are being put to work as fast as possible on what's going to become the Fort Peck Dam project; this first day of hiring, they're trucked down from Glasgow to the Missouri River and put right at clearing brush and sawing down cottonwoods, on the site that's going to be the boatyard (dredges etc.) for the dam project. There are four Duffs on the job: Owen, an engineer; his father, a homesteader drowned out by the dam, who's been put to whacking brush; and two younger brothers, the only one of which counts here the somewhat wise-ass one, Bruce.

So: these guys aren't really logging--after all, cottonwoods!--but there were some big old trees and stumps to be cleared. Does Bruce sound to you like he's going about things believably? If not, I'm open to suggestions. I mean, I get to talk to historians all the damn time, but not often a real choker-setter...

Hope you're thriving. Best to Karla.

Ivan

DEPARTMENT OF HISTORY

OREGON STATE UNIVERSITY
Milam Hall 306 · Corvallis, Oregon 97331·5104
Telephone 503·737·3421

April 12, 1995

Dear Ivan,

Please do send on the choker-setting pages! Pulling stumps, eh! That would not rank well with the loggers I worked with. But then I served my last stint as a choker setter in the summer of 1972 on an alder logging operation. How far can one fall?

Hope the novel is nearing completion.

The best to you and Carol,

Bill Robbins

DEPARTMENT OF HISTORY

OREGON STATE UNIVERSITY
Milam Hall 306 · Corvallis, Oregon 97331·5104
Telephone 503·737·3421

assoc dean!
9 depts 3-4?
mid-Sept.

April 25, 1995

Dear Ivan,

As you can see, I'm returning the copy of your script with my comments directed at appropriate parts of the narrative. If my handwriting is not legible or you have other questions, give me a ring.

I can be reached most days (except this Friday, April 28th) in my office: (503) 737-1270. I'm usually away at the "Beanery" or "Java Rama" between 9 or 10.

Because of the location of your story, I wonder if the Ft. Peck workers might have used Great Lakes pineries terminology? What we term "fallers" in the Northwest might have been "cutters" on the Missouri. And I'm equally uncertain about the derivation of choker. The name certainly is associated with steam logging: hence, it predates the internal combustion engine. But in the Great Lakes?

When I worked in the woods in Connecticut in the late 1950s, the word choker was current.

(over)

In any event, if these remarks are confusing, give me a jingle. I am on solid ground, however, in my references to D-4 Cats and stumps.

Hope this is helpful. I'm away Friday to give a talk to the Oregon Natural Desert Association. My title:

The Cultural & the Natural in the Oregon Desert

It should be fun!

All the best,

Bill Lobleus

srstx

Goliers online

world trouble-spots of 1935: had Italy invaded Ethiopia? 10/3/35 invaded in 1935 ✓

Had Japan invaded China? 9/18/31 Invadd Manchuria 1931
Sino Japanese war subdued by 1/32

If neither of these, what sticks out in, say, Facts on File or the NY Times Index or...?

✓
Jan- Dec 35
Jews in Germany

Ethopian + Italy

Big Problems of 1935 and 1936.

THE LEAGUE ACTS TO STOP ITALO-ETHIOPIAN WAR.

The Day-by-Day events in the course of the dispute and the war between Italy and Ethiopia and the steps taken by the League of Nations to settle the dispute and to stop the war, as reported by the news correspondents, will be found in the Chronology, Pages 140, 000.

Italy in 1869 bought from a local Sultan the territory on the southwest shore of the Red Sea and made it the Italian colony Eritrea (45,754 sq. m.); in 1892 territory along the northeast point of Africa was attained from the Sultan of Zanzibar and made the colony of Italian Somaliland (estimated 194,000 sq. m.). It is bounded by the Gulf of Aden on the north, the Indian Ocean on the east and south, British Somaliland (68,000 sq. m.) on the north and west, Abyssinia (now Ethiopia estimated 350,000 sq. m. on the west, and Kenya Territory (British) on the west and south. French Somaliland (8,880 sq. m.), on the Straits of Bab-el-Mandeb at the head of the Gulf of Aden, lies between Eritrea and British Somaliland, and has the harbor and port of Djibuti whence the French-built railroad runs to Addis Ababa.

In 1889 Menelik, King of Shoa, ascended the throne of Ethiopia. He concluded a treaty of friendship with Italy. According to the Italian text Ethiopia had accepted Italian protectorate, but the Amharic text asserted its complete independencee In 1893, after an Italian army had been sent into the Province of Tigre, Menelik denounced the treaty. The war ended in 1896 when the Italian army was defeated at Adowa, and in the treaty of Addis Ababa, Italy recognized the absolute independence of Ethiopia.

Italy, Great Britain and France sought spheres of influence in Ethiopia concluding an agreement to that effect in 1906 while pledging themselves "to make every effort to preskrve the integrity of Ethiopia." Ethiopia wss not consulted and contends that the treaty has no binding force.

In the secret treaty of London made in 1915, to bind Italy to the Allies in the World War, Great Britain and France agreed in principle that if they increased their territorial possessions in Africa at the expense of Germany, Italy may claim some equitable compensation, particularly on the frontiers of its African Colonies. Following the Treaty of Versailles, which in this respect was a great disappointment to Italy, Great Britain ceded Jubaland on the south border of Ethiopia to Italian Somaliland, and France, the Anglo-Egyptian Soudan and Egypt ceded about 43,000 sq. m. of desert to Italian Libya to rectify its frontiers.

In 1923 Ethiopia was admitted to the League of Nations, strongly supported by Italy and France, while Great Britain expressed serious doubts as to whether it could be classed as a modern civilized country; Ethiopia agreed to exert her best efforts to eliminate slavery.

In December, 1925, Italy and Great Britain reached an agreement under which Great Britain promised support to the Italian request for the construction of a railroad from Eritrea to the west of Addis Ababa with economic concessions along the line, and Italy promised support for British construction of a dam on Lake Tana to control the source of the Blue Nile which flows through the Soudan, and, joining the White Nile, through Egypt; and of a motor road from the Soudan to the Lake. Ethiopia was not consulted. The Emperor in 1926 protested to both governments and referred the matter to the League of Nations. Both countries promptly issued explanatory statements and both avowed no desire to offend the integrity of Ethiopia; in consequence nothing was done by the Council of the League.

In August, 1928, Italy and Ethiopia executed a Treaty of Friendship and Arbitration, also a convention prermitting Italy to build a motor road from Dessich in Ethiopia to Assab in Eritrea and the establishment of a free zone for Ethiopia in Assab, but this was not carried out.

The boundary lines between Ethiopia and the Italian colonies had never been determined. In the undefined frontier at Ualual a clash occurred. The Ethiopian Government claimed that Italian troops were on Ethiopian territory and that their provocative attitude led to the clash. The Italian Government claim was the direct contrary; and demand was made for an official apology, punishment of the offenders, and an indemnity of $100,000. Ethiopia then demanded arbitration under the treaty of 1928. Italy refused. Ethiopia on Jan. 3, 1935, appealed to the League of Nations. The Council to have time for direct negotiation postponed consideration on the appeal until May, and Italy agreed to submit the matter to a conciliation committee of the League, two for each side and a neutral chairman. Its work was limited to the cause of the clash and it was instructed, against Ethiopia's with, not to consider the question of the frontier. Its report on Sept. 3 cleared both parties of responsibility for the incident.

Baron Aloisi, Chief Delegate of Italy, presented the Italian case to the League Council on Sept. 4. His memorandum declared that Ethiopia for the last 40 years had refused to define its frontiers with the Italian colonies; had tolerated continual offenses against the immunity of Italian diplomatic and consular representatives; had permitted repeated attacks on Italian citizens; had systematically violated all treaties with Italy; had imperiled the security of the Italian colonies; and had continued to practice the slave trade. "Surely", the memorandum said, "the League of Nations must consider that a state such as Ethiopia in which barbarism is still systematic is unworthy to stand side by side with civilized nations," and had therefore lost all right to invoke the covenant against other League members. Italy "who stands in the most urgent and recognized need of colonial expansion," it continued, had also suffered the greatest damage, and was defending "her security, her rights and her dignity" as well as the prestige and good name of the League.

The Ethiopian delegate, Tecle Hawariate, and his French adviser, Prof. Jeze, replied on Sept. 5, and requested the Council to take immediate action under Article XV of the Covenant. The Council next appointed a Committee of Five, composed of representatives of Great Britain, France, Poland, Spain and Turkey, Salvador de Magriaga of Spain, chairman, to examine the matter and seek for a pacific settlement.

Before the Assembly of the League, which opened on Sept. 9, the Ethiopian delegate declared that his government would welcome "any suggestion calculated to raise the economic, financial, or political level" of Ethiopia, "provided it proceeds from the League of Nations and is to be carried out in the actual spirit of the Covenant." On Sept. 14, the Italian Government in an official communique, declared that its military preparations in Africa were proceeding with greater intensity so as to guarantee Italy against "preponderant Ethiopian forces whose mobilization is already taking place," and that Italy's military forces "on land and sea and in the air" were such as to "respond to any menace, from whatever quarter it may come"; and finally it asserted that the Italo-Ethiopian dispute did not "admit of compromise solutions after the enormous efforts and sacrifices borne by Italy."

The Committee of Five on Sept. 18, presented its proposals for Pacific settlement of the dispute in identical notes to both parties. This contained a program for the economic and cultural development of Ethiopia under the aegis of the League of Nations. No mention was made of ceding territory to Italy. To this Ethiopia returned a favorable reply, made public Sept. 23.

THE ITALIAN DEMANDS.

The Italian Government, however, promptly rejected the report and on Sept. 22, Premier Mussolini, in a statement not to the League, but to the press, stated the Italian demands substantially as follows:

1. Ethiopia must be disarmed.
2. Armament and training of future Ethiopian military forces must be under the direction and control of Italian officers.
3. Italy is to receive a large part of Ethiopian territory, passing west of Addis Ababa and connecting Eritrea with Italian Somiland.
4. Ethiopia might be granted a seaport, but only on Italian territory.

The Italian Government had proceeded vigorously with its plans for enforcing its will on Ethiopia by force of arms and had transported a large army with guns, tanks and airplanes and its supplies to Eritrea and Italian Somaliland and also to Libya where four divisions were facing the Egyptian frontier.

Great Britain, aroused by the threat to her interests in the Mediterranean and in Egypt, evident in the Italian moves, began in September to reinforce her Mediterranean fleet, to make Gibraltar, Malta and Cyprus secure, and to strengthen her garrisons around and near the Suez Canal. Assurance was obtained from France that French ports would be open to British vessels if its navy should be attacked by Italy while making preparations in the Mediterranean to apply League sanctions. A later proposal to

THE LEAGUE AND THE WAR IN AFRICA.

Great Britain that she withdraw its fleet, or the strongest units, if Italy withdraw one of its three divisions from Libya, was without avail as the British Government insisted that negotiations had to be carried on not with individual League members but with the League as a whole. The British Ambassador at Rome on Oct. 18, assured Premier Mussolini that Great Britain did not intend to take any action "beyond what might be agreed to or recommended by the League in conformity with the dispositions of the Covenant."

20,000,000 ITALIANS MOBILIZED.

Mussolini mobilized 20,000,000 Italians—men, women and children—throughout the Kingdom by sirens and church bells on Oct. 2, as a mass demonstration of Fascist discipline, and told them in broadcast speech of Italy's irresistible destiny and the country's preparation to meet acts of war with acts of war, should the League dare to apply sanctions. On the morning of Oct. 3, the Italian troops invaded Ethiopia, reaching Adowa on the 6th.

The United States, which as well as Italy, is a signatory of the Pact of Paris, took independent action on Oct. 5, when President Roosevelt, acting on the Neutrality Act of 1935, declared an arms embargo against both Italy and Ethiopia, and pointed out that American citizens "who voluntarily engage in transactions of any character with either of the belligerents do so at their own risk." The next day he issued a proclamation warning citizens against traveling on the ships of the belligerents.

The League Council sitting as a Committee of Thirteen in the absence of Italy (party to the dispute) made its report on Oct. 5 as called for by Article XV. After hearing statements by Baron Aloisi and Tecle Hawariate, the Council appointed a Committee of Six—Great Britain, France, Chile, Denmark, Roumania and Portugal—which reported on Oct. 7 that war existed and that the Italian Government had resorted to war in disregard of its obligations under Article XII of the Covenant, whereupon the thirteen members of the Council individually approve the report, and named Italy as the aggressor—an action without precedent in the history of the League.

FOUR COUNTRIES OUT OF FIFTY-ONE MAKE RESERVATIONS.

The League Assembly was reconvened on Oct. 9 by its president, Foreign Minister Benes of Czechoslovakia, and named Italy the aggressor on Oct. 11, when 51 of the 58 League Members gave silent approval to the Council's decision. The Dominican Republic, Guatemala, Paraguay and El Salvador were not represented. Italy voted against the decision and was supported by Albania, Austria and Hungary. Of the 51 States which agreed that Italy had incurred the penalties of Article XVI by resort to war, four—Switzerland, Chile, Uruguay and Venezuela—made reservations tending to restrict their execution of this article. Switzerland did not wish to consider any sanctions, even non-military ones, which might endanger its traditional neutrality.

THE SANCTIONS SET UP.

The League Assembly immediately set up a Committee for Coordination of Measures under Article XVI composed of all League members except Italy. The Committee, on Oct. 11, with Hungary only abstaining, adopted **Proposal 1**, imposing on Italy an embargo on arms, ammunition, and implements of war, and lifting the embargo on arms exports to Ethiopia. The list of arms, etc., in President Roosevelt's proclamation of Oct. 5, was adopted with the addition of powder and explosives.

The Coordination Committee, on Oct. 14, adopted **Proposal 2** in which League members undertook to render impossible all loans and credits, public and private, to the Italian Government, its nationals and corporations on its territory, to be put into full operation by Oct. 31.

The Committee completed its economic and financial sanctions on Oct. 19, when it adopted **Proposals 3, 4 and 5. Proposal 3** prohibited importation by League members of all goods coming from Italy directly or indirectly. **Proposal 4** placed an embargo on key raw materials necessary for war; these included for the time being products controlled wholly or in major part by League members, transport animals, rubber and various metals and minerals, notably bauxite, aluminum, iron ore, scrpa iron, chromium, nickel, and manganese; oil, cotton and copper produced also by non member countries, notably the United States, were not then barred.

By **Proposal 5** League members undertook to give each other mutual assistance to minimize economic losses suffered as a result of applying economic sanctions against Italy, such members as Roumania and Yugo-Slavia.

On Oct. 29, the Committee fixed Nov. 15, as the date when sanctions should go into effect.

Great Britain, on Monday, Oct. 14, adopted a policy of neutrality under The Hague Convention of 1907, under which Italian ships carrying supplies to the Army in Africa will not be allowed to stay in a British port more than 24 hours and may take on supplies sufficient only to reach the nearest Italian port.

THE WORLD COURT.

The Permanent Court of International Justice (usually referred to in the United States as the World Court) owes its existence to the initiative of the League of Nations acting under Article 14 of the Covenant, which provided that:

> The Council shall formulate and submit to the Members of the League for adoption plans for the establishment of a Permanent Court of International Justice. The Court shall be competent to hear and determine any dispute of an international character which the parties thereto submit to it. The Court may also give an advisory opinion upon any dispute or question referred to it by the Council or by the Assembly.

The nations now in the World Court are:

Albania, Australia, Austria, Belgium, Bolivia, British Empire, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czechoslovakia, Denmark, the Dominican Republic, Esthonia, Ethiopia, Finland, France, Greece, Guatemala, Haiti, Hungary, India, Irish Free State, Italy, Japan, Latvia, Liberia, Lithuania, Luxemburg, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Persia, Peru, Poland, Portugal, Roumania, El Salvador, Siam, Union of South Africa, Spain, Sweden, Switzerland, Uruguay, Venezuela and Yugo-Slavia, all members of the League, and Costa Rica and Brazil, both of which resigned from the League, but are still in the Court. Seven of the 52 have not yet ratified their signatures; these are, Bolivia, Costa Rica, the Dominican Republic, Guatemala, Liberia, Nicaragua and Paraguay. Mexico, Iraq and Turkey, new members of the League in 1933, have not yet signed. Neither have Afghanistan, Ecuador and USRR (Soviet Russia), new members in 1934.

Germany resigned from the World Court on Oct. 19, 1933, as well as from the League of Nations.

The budget estimates were: For 1934, 1,218,833 Dutch florins; for 1935, 1,216,805 florins.

The Court is open to every nation of the world, under conditions laid down by the Council of the League in May, 1922, which require a declaration accepting the Court's jurisdiction in accordance with the terms of the Covenant and with the Statute and Rules of the Court and engaging to carry out the Court's decision in good faith and not to have recourse to war against another nation that obeys it. If there is on the Bench no judge of the nationality of a contesting party, such a judge may be selected by that party for that case only. There are now 15 judges; the salary of each is 15,000 Dutch florins.

The Assembly and Council of The League of Nations elected these judges for the period 1931-1939:

Judges: Sir Cecil James Barrington Hurst, *President*, British; J. Gustavo Guerrero, *Vice-President*, Salvador; Baron Rolin-Jaequemyns, Belgium; Count Michel Rostworowski, Poland; Henri Fromageot, France; Antonio S. de Bustamente y Sirven, Cuba; Rafael Altamira y Creva, Spain; Dionisio Anzilotti, Italy; Francisco Jose Urrutia, Colombia; Baron von Freitag-Lorenhoven, Germany; Demetre Negulesca Roumania; Jonkheer Willem J. M. van Eysinga, Netherlands; Wang Chung-Hui, China; Harukazu Nagaoka, Japan.

Deputy Judges: Joseph Redlich, Austria; Jose Caeiro da Matta, Portugal; Mileta Novakovitch, Yugo-Slavia; Rafael Waldemar Erich, Finland.

The presidency rotates; Sir Cecil Hurst of Great Britain was elected to that place in November, 1933.

The Registrar of the Court (since 1922) is M. Ake Hammarskjold, Counselor of Legations of H. M. the King of Sweden.

Adherence to the World Court was favored in the platforms of both the Democratic and Republican National Conventions. President Hoover sent the protocols to the Senate Dec. 10, 1930. It came to a vote in the Senate on Jan. 29, 1935, and was defeated, as the vote, 52 for adherence and 36 against, failed of the necessary two-thirds by 7.

Was David Lloyd-George ever Chancellor of the Exchequer in the British governments of Prime Ministers Campbell-Bannerman or Asquith, and if so, what years?

Chancellor of The Exchequer under Asquith April 12, 1908 - May 25 1915.

From

Butler, David and Anne Sloman. British Political Facts: 1900 -1979. New York: St Martins Press, 1980.

DL-G was president of The Board of Trade under Campbell - Bannerman

Lee "Rolfe" p. 382 etc.
anesthesia @ time; new drugs WWII –
– Midwifery School; lib in @ 1-5
– Jean Pesche
322-8834
– reaction OK: naive or not?

p. 382 – pause betn "I have it" –
– largest bowel movemts of life
– not inside-out; trying to empty or pass

– June 20: Women & Health in Amca
scopolamin- morphin → – "twilight sleep"
– advocated by feminists,
take pain out
– 1915
– forgot pain; cd. remember childbirth
– when used, had to be in hospital
– 1920s-60s parturt

11 July '95

Dear Lee--Rolfe

Here's the manuscript piece, about one-third of the book-to-be, that you've so generously offered to read. This version still has holes and rough spots, but it is meant to bring the entire Duff family--five couples of them--onstage and start moving them toward their fate. So, if you would please read and make any comments you feel like, on the Post&Its or in the margins, whichever suits you, on what might be called the family dynamics; particularly:

--the relationship between the younger brothers Bruce and Neil; do they sound right, as siblings who are bound together but each want to go their own way?

--any of what today might be called the inter-generational stuff: Meg cherishing Owen as her favorite son, Owen's stiff-backed attitude toward Hugh, Hugh's lapse from his patriarchal role when they all move to the dam; do you hear any wrong notes in any of this, any moments when you think somebody just wouldn't behave that way? The Duffs are meant to be complicated and occasionally surprising, but I also want them to behave somewhat along the familial laws of gravity.

Finally, I'd welcome any comments on the nuts-and-bolts of the book's structure, which as you know from life with Tony, is where we try to make our work grow up into art. Some of the parts underlined or marked "ital" will be italic flashbacks, such as the telling of Meg and Hugh's married life in a chronology unfolding farther and farther back as the main plot proceeds chronologically forward; yet the book also has frequent changes of scene, almost cinematic cutting; are there any places where this particularly bothers you as a reader, where you just want to say, C'mon, be more straightforward here? And, naturally, anything else you see that doesn't work as well as it should.

big thanks,

Ivan

ugsta
mustx

correct spelling of the Irish (pseudo-Irish?) sentimental song, "Mother Machree"
(or "Macree"?)

Machree

Studwell, William. The Popular Song Reader: A Sampler of Well Known Twentieth-Century Songs. New York: Haworth Press, 1994.

When Irish Eyes Are Smiling

The Irish always manage to be a prominent part of various cultural activities, so how could this book ignore them? There have been a number of well-known songs on an Irish theme over the years, and the Irish tenor is a special breed of singer that is musical heaven or purgatory to the subjective ears of listeners.

Perhaps the most famous Irish ballad is "When Irish Eyes Are Smiling" (1912). The words by Chauncy Olcott (1858-1932) and George Graff, Jr. (1886-) and music by Ernest R. Ball (1879-1927) have been a particular favorite of Irish tenors. Prior to "Irish Eyes," Olcott by himself wrote "My Wild Irish Rose" (1899) and collaborated on "Mother Machree" (1910) with lyricist Rida Johnson Young and co-composer Ball.

Other "old sod" type pieces were George L. Giefer's "Who Threw the Overalls in Mrs. Murphy's Chowder?" (1899) which was a comedy favorite in vaudeville early in the century, James Royce Shannon's "Too-Ra-Loo-Ra-Loo-Rah" or "That's an Irish Lullaby" (1914), which was a favorite of Bing Crosby, "MacNamara's Band" (1917) by lyricist John J. Stamford and composer Shamus O'Connor, which was popularized by Dennis Day, "The Daughter of Rosie O'Grady" (1918) by lyricist Monty C. Brice and composer Walter Donaldson, which was a dance favorite in vaudeville, and "How Are Things in Glocca Morra?" (1946) by lyricist E. Y. Harburg and composer Burton Lane, which is one of the top pieces about the Emerald Isle.

Note that with the exception of O'Connor, none of the creators of these Irish standards are obviously Irish. (James Royce Shannon was the pseudonym of James Royce and therefore seems to be excluded from the Irish category.) Particularly interesting in this respect is the master of Irish ballads, Olcott, who as far as is known had no Irish background. Even his Irish-sounding first name "Chauncy" was changed from the decidedly non-Irish "Chancellor."

UW Archives

ms p. 352

Rosellen:

Sat Eve Post : Independence Square, Phila.

Atlc Mo'ly : 8 Arlington St, Boston

Liberty

Collier's : 250 Park Ave, NY

small list of others mags of the time: The Country Gentleman
Woman's Home Companion
American Mercury
Better Homes & Gardens
Country Life
Good Housekeeping
Ladies' Home Journal
Saturday Evening Post
Scribner's

UW

F7. Peek Ope detail

WARDLOW, JAMES A., 4746 White Wood Avenue, Long Beach, California 90808. "I learned to fly. Bought a Waco 10, #1263 and flew passengers over the area in my spare time. The son of a close friend has the old Waco at Hardin, Mont. now. He plans to restore it to service."

more (w/ typos?)

also in MHS oral history: this is guy who lived on a homestead @ airport.

629.13 J252 - Eng
has all world's aircraft

UW Sears? Montgomery Ward?

check mid-30's catalogues for Charlene's gabardine slacks & Brigham lt-wool shirt, and any other wear for either the women or the men.

GT 615 E92 1981 Everyday fashions of 30s

658.872
Sel c

in encyclopedia (likely Americana) entry on Diving, there's also a mention of entry on Bends; get copy, for checking over Bruce's decomp'n chamber scene etc.

UW

look up history of Caterpillar Co., or tractors

--1930's models of Cats

--what color?

The Story of Cat's Trac. Co.
Wm L. Naumann 1977

606 N439a #1060

Bus Ad stacks

p. 11 - 1931, 1st co. to offer mobile diesel power in a moving vehicle ...
. Cat diesel engine
- sales rose after '32
- 1930's demand for Cat appt for ... construction jobs

3 Sept. '95

Dear Ann and Marsh--

Our trip schedule, just so somebody besides the neighbors (the Joyners, 546-1846) know our whereabouts...

Interested in helping yourselves to our strawberry patch? There should be nice batches ready about once a week, say around the 7th and the 13th? I'll leave the key to the side gate padlock in the compartment of our woodhouse closest to the road, under the coffee can, in case the strawbs tempt you over.

How about a Provinces dinner on Wed., the 20th?

Quick note on my eternal damn manuscript: my NY editor mildly suggested changing the name of either Rosellen or Rhonda, as she had a little trouble at first with the similarity(?)--I guess the R, O, N,.. Did either of you have that trouble on first reading? I'm mulling this, because Rhonda was originally going to be "Kate" anyway. Opinions welcome.

Talk to you in a couple weeks.

Hugs

Dick Brown –
aussie material
review & recs
June 14 · 3 wks – wkend in Paris
– base in London – 1 wk
Ox & Camb
Edin

McC –
– San Franscisito – S Clara
St Francis Dam · late '20s
→ Mulholland ⟷ ⇕
400–450
Chas Outland – Manmade Disaster
– 2nd ed'n

biog:

Joe Johnson – here ~ Nov.

job: E W – see from 1st mtgs
Don Pisani – wn water
Carl Abbott
suspend. search for a couple yrs
Jeff Ostler – LV
Peter Borque – ID St – Brownsul or Env't & Exper
visit'g assoc prof – next yr

29 Aug. '95

Dear Ann McCartney--

Good to see you guys last weekend. You both look thriving.

You wanted to see the rest of the manuscript, eh? I've also put in a sealed envelope for you after you've read the manuscript a few things to illustrate my reasoning, and a couple examples of rewriting I've done that I thought might interest you. Also am enclosing what I hope is enough $$ to cover your postage for returning the first batch of the manuscript and now this one.

Speaking of things financial, now that you're self-employed I thought I'd pass along the actual figures on self-employed Social Security tax, so you won't be in for a rude shock next April 15. On income up to $61,200, it's 15.3%. (FifTEEN point THREE! I can hear Norm now.) So there's that and estimated quarterly income tax payments to be mulled over with your tax guru when you get going as a consultant.

All is well here. We're about to start putting our minds toward Idaho, Wyoming, and Montana.

best,

Dear Ann--

My reasoning, such as it is, for this ending instead of other possibilities:

--Charlene and Neil, an obvious temptation; but I don't see a logical set of circumstances by which one of them would do in the other--and I do want to have the fatal act happen from within the truck, rather than somebody hokily sneaking up etc. Nor do I think Charlene, because she is after all a tough-minded endurer even when she doesn't like her lot in life, would knock off Darius and herself, in Rosellen's situation.

--Meg and Darius, which would fit with a plot of Owen secretly being Darius's son and so on; but that's been done a gillion times all the way back to Greek tragedy.

--As to Rosellen, what I have in mind here is as if Anna Karenina had taken Vronsky with her when she threw herself in front of the train (as I think she damn well should have taken him). ~~[illegible]~~ You likely noticed that Rosellen needs strengthening as a character, and I've begun putting in touches that show her as a reader and a dreamer but also with a depressive tendency; she had to mentally plunge around more than in my early draft, and I'm enclosing a few highlighted examples of additions I've made so far. I've always seen this book as a tragedy rather than a formula mystery, so if Rosellen is an unsettling choice to have done the deed, seems to me that's where the plot ought to go.

Glad for any more suggestions you might have on making this add up, and thanks loads for reading it for me.

best from Carol too,

Dear Ann--Nelson

So at least it wasn't Bruce, huh?

My reasoning, such as it is, for this ending instead of other possibilities:

--Charlene and Neil, an obvious temptation; but I don't see a logical set of circumstances by which one of them would do in the other--and I do want the fatal act to happen from within the truck, rather than somebody sneaking up etc. Nor do I think Charlene, because she is after all a tough-minded endurer even when she doesn't like her lot in life, would knock off Darius and herself, in Rosellen's situation.

--Meg and Darius, which would fit with a plot of Owen secretly being Darius's son; but that's been done time and again all the way back to Greek tragedy.

--As to Rosellen, what I have in mind here is as if Anna Karanina had taken Vronsky with her when she threw herself in front of the train (as I think she damnwell should have taken him). You're right that Rosellen needs strengthening as a character, and I've begun putting in touches that show her as a reader and a dreamer but also with a depressive tendency; she has to mentally plunge around more than in my early draft, and I'm enclosing a few highlighted examples of additions I've made so far. I see this book as a tragedy rather than a mystery, so yeah, if she's unsettling choice to have done the deed, seems to me that's where the plot ought to go.

Glad for any more suggestions you might have on making this add up, and thanks loads for reading it for me.

luv,

Ivan

Complete Presidential Press Conferences of F.D.R.

V. 9-10, 1937

CONFIDENTIAL
Press Conference #400
Hyde Park, New York
October 6, 1937, 11:30 A.M.

(The President's mother and Mrs. Roosevelt were present at the conference which was held on the entrance porch of the Hyde Park home.)

THE PRESIDENT: How is everybody? Little strangers -- I have often seen them in the distance.

Q: We were not always sure you were on the train.

THE PRESIDENT: Ernest, how are you this morning?

Q: (Mr. Lindley) We all want to get to the hotel and shower a bit.

THE PRESIDENT: The real part of the trip that you missed was Lake Crescent, so far as the crazy part is concerned.

MRS. ROOSEVELT: I read Mr. Post's story.

THE PRESIDENT: That was mild.

MRS. ROOSEVELT: I decided that it was not as comfortable perhaps, as it might have been.

THE PRESIDENT: It was one of those rare occasions when the press, in their stories, showed real understatement.

MRS. ROOSEVELT: It showed that we are, all of us, growing a little soft.

Q: I didn't say that. (Laughter)

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MRS. ROOSEVELT: I can only tell you gentlemen that if you did not sleep that night, I did not either because I had to change planes every five minutes.

(General conversation about trip.)

THE PRESIDENT: I think you have got all the news there is. I don't know of any, literally.

Q: Do you care to amplify your remarks at Chicago, especially where you referred to a possible quarantine?

THE PRESIDENT: No.

Q: Have you had any communication with Mr. Black since his return?

THE PRESIDENT: None at all.

Q: Did you have any prior knowledge of the fact that he was going to speak?

THE PRESIDENT: I just might as well talk to you, off the record. Actually, what happened that day was that in the morning, I think it was Jimmie who said, "By the way, Mr. Black is going on the air tonight at 6:30." I had entirely forgotten about it. I said, "Fine," and never thought about it again, and I did not go to the Governor's Mansion to receive a telephone call. Ernest (Lindley) and I did not change cars, U. P.,

--- [234] ---

because I wanted to avoid the radio. What happened was very simple. About twenty minutes before five, before we got into Olympia, the Governor said, "It has stopped raining. Don't you think it would be a good idea to get into the open car because there will be a crowd there." When we got into Olympia there were certain reasons why we wanted to go to the Governor's Mansion -- I need not explain any further -- and after we got away from Olympia the road was wet so we slowed up the thing to prevent the policemen on motorcycles from going overboard. For that reason we had a slow run and instead of being in the open car for about twenty minutes I was in it exactly two hours and ten minutes. That is the actual, simple fact.

Q: Do you care to make any comment at all on what Mr. Black said? I am sure you will recall this -- we all like surgical precision --

THE PRESIDENT: "Surgical" is good.

Q: (Mr. Anderson) (Reading)

> "I know only what I have read in the newspapers. I know that the stories are running serially and their publication is not complete. Mr. Justice Black is abroad. Until such time as he returns there is no further comment to be made."

Now he is back.

--- [235] ---

THE PRESIDENT: Well, there isn't any comment.

Q: That probably implied that there would be, did it not?

THE PRESIDENT: No. It strongly implied that there was a possibility, that is all; not that it would be. I know my English.

Q: "Until?"

THE PRESIDENT: No.

Q: I wonder if you could help us a little bit in interpreting.

THE PRESIDENT: Perhaps I should have used the Wall Street term, 'when, as and if."

Q: It did imply that there was a possibility and now there is no possibility.

THE PRESIDENT: Yes. It depended on circumstances and subsequent happenings.

Q: Can we take it, then, that your attitude from now on --

THE PRESIDENT: You cannot take anything, Bob. That is an "if" question.

Q: When will you determine whether there shall be an extra session of Congress?

THE PRESIDENT: I should say within the next week. I have to get back to Washington and do some checking up down there.

Q: What are the conditions that will bear on that decision, the extent to which Congress is ready to proceed legislatively?

--- [236] ---

THE PRESIDENT: Partly that and partly the opinions of various people that I want to talk to and have not had a chance to talk to. I would say, for background, that probably three-fourths of the Members of Congress to whom I talked on the trip are in favor of a Special Session.

Q: By the way, you did talk to the Senate Farm Committee at Spokane, Pope and McGill?

THE PRESIDENT: I did not see them at Spokane. I think I saw Pope on the way out, did I not?

Q: I think so.

THE PRESIDENT: But I have not seen any of them since they started their hearings. I believe somebody on the train had seen them at Spokane --

Q: That was Jim Murray.

THE PRESIDENT: Yes, Jim Murray, that was it, and he told me how they had gotten on.

Q: He was under the impression that you had seen them too.

THE PRESIDENT: No, he simply told me he had talked to them and he thought they were getting on very well.

Q: He told me they did think there should be an extra Session by all means.

THE PRESIDENT: Yes.

Q: Is this November 15 a good guess if you do have an extra Session?

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THE PRESIDENT: Well, I do hate to specify a date. If I were writing the story, I would say somewhere between the 8th and the 16th because that would give them time, if there is a Special Session, to get most of the spade-work done before Christmas holidays. If it were made too late they would run into the Christmas holidays before they really got anywhere.

Q: Are we safe in assuming that wages and hours would come in for consideration by that Special Session, if there is one?

THE PRESIDENT: If I were writing the story I would mention the principal things such as the crop thing, wages and hours, reorganization, regional planning and, by the way, on regional planning, of course it is easy to say "the little T.V.A.'s" but of course they are not.

Q: They are not?

THE PRESIDENT: No, they are not T.V.A.'s. They are not at all T.V.A.'s. In other words, the T.V.A., under the Act, is given complete charge over a whole region, a whole watershed and, if a dam is to be built, the T.V.A. builds it. When an electric transmission line is to be run, the T.V.A. runs it. When there is soil erosion work to be done, the T.V.A. does it, and the T.V.A. is doing quite a lot of that replanting. When it is a question of building certain communities, you will notice that

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the T.V.A. is doing it. In other words, it is a complete administrative agency for that region.

Now, the bill which Senator Norris has is an entirely different thing. It does not create any Board or Commission with administrative authority. It is merely a planning agency and, as the bill is drawn, it is nothing more than a planning agency.

Of course on the administrative end, things depend a good deal on how the reorganization bill goes through. Of course the idea of the reorganization plan originally was that there would be a Public Works Department. Now that has been eliminated but we can arrive at the same objective by an entirely different method by coordinating all of the public works agencies of the Government through the President's office so that after a plan for a region is made, the Congress and the President would then determine who would carry out the plan. Now, it would not be in one agency, necessarily. There might be a dam on the Columbia River, a new one, three or four or five years from now which had been recommended and which Congress appropriated for. Now, in all probability, that dam would be built by the Army Engineers or the Reclamation Service and not by the Columbia Valley Authority because that is only a planning agency. Do you see the distinction?

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Q: The agency would determine how much of the program is to be carried out at any one time?

THE PRESIDENT: No, the agency would only make recommendations to the planning agency of the President -- the national planning agency under the White House. I think the easiest way of putting it is this: Suppose there are eight regional agencies and they make recommendations for 800 million dollars to be spent. They all come in with their recommendations and they amount to 800 million dollars. The President confers with the Director of the Budget and with the Secretary of the Treasury. We say, "This is perfectly absurd. We cannot possibly recommend to the Congress 800 million dollars of public works. We can only recommend 200 million dollars." So we get them all in, the eight chairmen, around the table and make them cut their 800 million dollars down to 200 million dollars. Some are made to cut more than others but the total amount involved is cut from 800 to 200 million. We list those in a list marked "A" and we list

another 200 million dollars, let us say, in a list marked "B" and we send those two lists to the Congress as part of the budget and we say to the Congress, "Here is what we have all agreed on as being the best projects. They are in list 'A' and we can afford 200 million dollars which they will cost

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but, for your information, here are the next best, another 200 million dollars, and it is entirely in the discretion of you gentlemen as to whether you want list 'A' as it is or take something out of list 'A' and substitute something from list 'B,' but that is in your discretion. The only thing we ask for is that your total not exceed the 200 million dollars. You can even, if you gentlemen of the Congress think it is wise, authorize something that is not on either list 'A' or list 'B.' That is solely a matter of Congressional discretion, but don't go beyond 200 million dollars."

Q: Thank you, Mr. President.

Q: I wonder if you would give us a brief resume on what you "intook."

THE PRESIDENT: Gosh, it is awfully hard to do it off the record.

Q: Do it on the record.

THE PRESIDENT: Or on the record. Well, I "intook" the general situation west of the Mississippi because I did not get much of a chance to see things east of the Mississippi. First of all, the crop situation is infinitely better than at any time in the last four years; even, on the whole, better than 1935 which was not a serious drought year. A great deal better

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than 1934 and 1936.

Q: You could have got that from the Department of Agriculture here.

THE PRESIDENT: Yes, I could, but I always like to check figures and statistics.

Q: You have to see them?

THE PRESIDENT: Yes, that is right.

Number two, I think there is a better understanding of what it is all about than there has been at any time in the past.

Q: On the part of whom?

THE PRESIDENT: On the part of the voters, on the part of the population.

Q: You don't mean the same one they had in November, do you?

THE PRESIDENT: Let me give you an illustration: I mentioned several times, for instance, that P.W.A. and W.P.A. projects have got to be curtailed. There would have been an awful holler a year or two years ago or three years ago if I had said that. Today there is a general understanding of

that fact.

Q: When you say, "What it is all about," you mean what the Administration is doing?

THE PRESIDENT: Yes.

Q: Don't you think that links with number one intook -- better crops?

THE PRESIDENT: No, I do not think it is a question of better crops.

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Q: Do you think they have the understanding --

THE PRESIDENT: Perhaps better crops help them to better understanding, but there is an understanding that it is not a mere hand-out program, it is an economic program which shifts with the economic situation of the country. It is an understanding that we are not going to keep people on relief when we do not need to.

MRS. ROOSEVELT: If the crops had not been better they would not probably have had to understand it because the action taken would have been different.

THE PRESIDENT: That is perfectly true too. And then there is also general acceptance on that same crop end of the fact that we have got to have some kind of a surplus control. The overwhelming majority of farmers are for it.

Q: Did you mean it literally when you said that "Jim Murray and I have reached the conclusion that the building of schools and stadiums should be dispensed with," and that you should turn to reclamation projects, dams, et cetera?

THE PRESIDENT: Not hard and fast. You might get a place where there are a thousand unemployed and nowhere to put them to work except on a municipal improvement.

Q: Here is an impossible question which my editors keep asking me: You are going to put many new millions of

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acres into cultivation and, at the same time, we are curtailing crops elsewhere?

THE PRESIDENT: Certainly.

Q: There seems to be a conflict there?

THE PRESIDENT: Why?

Q: Isn't there a conflict when you put more acres into cultivation at the same time you are trying to reduce acreage elsewhere?

THE PRESIDENT: Not at all.

Q: Why?

THE PRESIDENT: Because the reduction of acreage takes place, in almost every case, on poor land.

Q: Well, the new acreage will grow more than the old ones did, and they grew too much?

THE PRESIDENT: No, they won't grow much more than the old ones did. That is exactly the point.

Q: No?

THE PRESIDENT: Do you remember that drive from Glasgow down to Fort Peck. That is almost all upland. None of that land ought to be cultivated; none of it at all. Well, what are you going to do with the families on it, throw them into the cities and put them on relief? We have got to move them somewhere. Where? Suppose you put them down in the Boise Valley. That upland farmer was farming 300 acres of wheat and he had

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not made a good crop for the last seven or eight years. Take him down and put him on 40 acres in the Boise Valley. He does not grow wheat, he grows small stuff, garden crops like onions of which there is very little surplus at the present time. You have transferred him from a crop which has a large surplus into another crop which has virtually no surplus.

Q: Mr. President, we heard constantly as we went through the West that there wasn't any interest any more in agricultural legislation, especially anything that carried crop curtailment because they had good crops and good prices for the moment. Did you sense that feeling or have you had reports --

THE PRESIDENT: There is always, when you get a pretty good price and a good crop yield, a slackening of interest. Of course most of them realize and remember what has happened in the past and there is very little, not nearly as much as one would expect, of the lack of interest that would normally come because they remember what did happen and they say to themselves, "If we do not do something about it at the present time, it will happen again." They are much better educated than they have been.

Q: So you feel it won't be difficult to put through this farm legislation when Congress returns?

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THE PRESIDENT: No. And of course the other side of it is that if it does not go through they are bound to have an awful smash in crop prices and then they will be the first ones to come and demand what we are trying to do for them this year.

Q: Not changing the subject, but did you intake anything on the Supreme Court issue?

THE PRESIDENT: Apparently no real interest in the method but a great deal of interest in the objectives. In other words, the average man throughout the West and all through the East says, "Quicker, cheaper justice, extremely advisable and very necessary. We have all had our experiences. We do not know much about details. Maybe the President is right, maybe

CONFIDENTIAL
Press Conference #403
Hyde Park, New York
October 15, 1937, 12 Noon

THE PRESIDENT: Literally there isn't any news at all. Joe Kennedy is coming up for lunch on Shipping Board matters. I don't know of anybody else. Oh, Emil Ludwig has come back but I don't know when I will see him.

Q: I am instructed to ask you if you would care to identify the prominent economist mentioned in the fireside talk.

THE PRESIDENT: You will have to look it up. It is quote stuff. You will have to look it up. He is prominent.

Q: Mac (Mr. McIntyre) said it was probably him.

THE PRESIDENT: No, it is a real, honest-to-God professional economist. Mac is an economist but not a professional economist.

MR. McINTYRE: I wish, Bob (Mr. Post), you would show the President this other query. Off the record, I would like him to read it. I think it is a pip.

Q: (Mr. Post) No.

Q: (Mr. Trohan) It looks like a good story to me.

MR. McINTYRE: It looks as if they decided they wanted a rough draft of your message to Congress. This isn't anything but one of those modest demands you get from the desk once in a while.

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THE PRESIDENT: This is a Sunday piece. (Reading) This is grand. This is what is called a psychological story to find out whether the slump in the market bothers me. You can tell him that he will learn nearly all about this in my message to Congress in November and again in January. If he wants a psychological story he should hire Mark Sullivan and then Mark can tell him all about it from the way I raise my voice or whether the tone of my voice denotes internal anger or not. I think Mark has been a scream lately as an epxert on facial expression and tone of voice.

Q: In connection with the market slump, have you read Winthrop Aldrich's speech?

THE PRESIDENT: I haven't yet.

Q: It is not long. He attributes the break largely to unwise and inconsistent legislation. Do you care to say anything about it?

THE PRESIDENT: Not on the record, but I will tell you an off-the-record story.

Q: (Mr. Trohan) It will be in the New York Post tonight.

THE PRESIDENT: It will not.

MR. McINTYRE: You are perfectly safe here.

THE PRESIDENT: If I am perfectly safe, then all right. On

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the trip out West, about half-way across, I got a three-page telegram from -- I don't know that I should tell you his name -- it was from Clarence Woolley, head of the American Radiator Company. He was upset about the stock market. In his judgment there was one thing to do immediately, and that was to reduce margin requirements. He went on for two pages about that and then he ended up something like this: He said, "As you know, I am not speaking for the big speculators, I am not even speaking for the medium-sized speculators, I am not speaking for any speculators. I am talking about the little man, the small investors, the people who are scattered all over the country, little bits of investors, the people that you are most interested in, the kind of people who are carrying little brokerage accounts from ten to twenty thousand dollars."

Q: The paupers. (Laughter)

THE PRESIDENT: Which I thought was perfect.

Q: Those on relief.

THE PRESIDENT: I think it is one of the best psychological stories I know, the attitude of those fellows who are thinking in certain terms -- ten to twenty thousand dollars, poor little fellow.

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Q: Aldrich wants lower margin requirements too, among a lot of other things.

THE PRESIDENT: And no regulation of security markets?

Q: Without interference in trade.

MR. McINTYRE: Let nature take its course.

Q: That is exactly what it boils down to. He wants economic forces to have free play.

Q: Anything on the foreign situation?

THE PRESIDENT: Not a word.

Q: May we presume, in view of the representations made by Norman Davis in Geneva in 1929, that there are disturbances abroad?

THE PRESIDENT: 1929 or 1919? (Laughter)

Q: I have forgotten just when; my memory isn't so good.

Q: Is it a fair inference from your fireside chat the other night, that mediation would be the first step of the Conference toward settlement of the Far Eastern situation?

THE PRESIDENT: I said that, in so many words.

Q: I think you did. What would follow after that?

THE PRESIDENT: Now you are getting into the "if" field.

Q: What is the machinery of appointing delegates or a delegate?

THE PRESIDENT: We have not been asked yet.

Q: I thought we had accepted.

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THE PRESIDENT: We have not been asked yet.

Q: I am confused then; I thought we had.

THE PRESIDENT: We had not up until last night; I have not heard this morning.

Q: Will Mr. Davis represent us?

THE PRESIDENT: As I say, we have not been asked yet. The girl does not accept until she has been asked. Some do, but we don't. (Laughter) Mac, you ought to read them that story that Joe Davies wrote to you.

MR. McINTYRE: I shall.

Q: Did he volunteer? He didn't volunteer, did he?

THE PRESIDENT: It is a story about a priest and a virgin.

Q: I wanted to ask, in the event of wounding of Americans, is that going to mean any change?

THE PRESIDENT: You had better ask the State Department; I haven't any information on it at all.

Q: How about the Vatican's position?

THE PRESIDENT: Has that been substantiated?

Q: I only know what I saw in the papers.

THE PRESIDENT: "I only know what I see in the papers." From you, George (Durno), that is a peach.

Q: It was virtually substantiated this morning. It is not the kind of story that would be written cold.

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Q: Our story (A.P.) quoted an "official source."

THE PRESIDENT: The story said, "From unofficial sources it was learned."

Q: Mr. President, are you planning to make any recommendations in regard to modification of neutrality legislation?

THE PRESIDENT: I cannot discuss it at all. That is too "iffy." Of course, I

recognize the difficulty of trying to write guesswork stories about foreign affairs in the future. I cannot write guesswork stories for you, therefore whatever is written in any newspaper about what the United States is going to do in the future is absolute, sheer, utter guesswork.

Q: We know that, Mr. President, Are there going to be any conferences next Wednesday, when you get back, with legislative leaders? Can't we get some news out of that?

THE PRESIDENT: I don't know. I don't know where they are.

Q: We have all been writing the same story for four days. I want to get a little germ of truth in it.

THE PRESIDENT: I suggested right along that you write a real story, one about three paragraphs, that there is no news at Hyde Park. Now, that is news.

Q: We would get call backs.

THE PRESIDENT: How can you write any story today? I don't

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know. I don't see how you can do it. I simply haven't got any news.

Q: We certainly cannot write an affirmative one.

THE PRESIDENT: You can say I have no news but I have been in touch with various departments in Washington, as I am every day. I have been signing a whole lot of mail and studying a lot of papers.

Q: Can we put that in quotes?

THE PRESIDENT: No, and, so far as I know, I won't have any news while I am here. Joe Kennedy is going to come by and talk about routine matters. Ludwig is engaged in writing a book. I don't know what he is coming for, but you may be able to interview him.

Q: How about Mr. Mahon's call?

THE PRESIDENT: I cannot give you a story on that. I can talk to you off the record. Some of you may know Jim Mahon in Washington in the older days. He was a Congressman, was he not?

MR. McINTYRE: I remember the name.

THE PRESIDENT: I think he was Congressman from the Brooklyn Navy Yard District in the old days. He is an awfully nice fellow. He was at one time President of some union. Now his wife has died and he is footloose. He had to use

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all of his money to pay the doctor's bill. He wants a job as Under-Secretary or Assistant Secretary of Labor. It is one of those pathetic things. It is a question of getting him some kind of a job.

MR. McINTYRE: He was a good man at labor.

THE PRESIDENT: He is too old to do any work.

Q: Mr. President, has the internal row of the Coal Commission been called to your attention?

THE PRESIDENT: No.

Q: There have been a number of reports saying that there is a lot of trouble over patronage and personnel matters and members have threatened to quit unless straightened out. It is said that they are going to refer it to you.

THE PRESIDENT: The only thing to do is to lock them in a room until they iron it out or they don't get any lunch.

Q: Have you any plans for fishing off Mobile?

THE PRESIDENT: The only plan I have is to try to go down to Warm Springs for Thanksgiving.

Q: Does that mean a long stay?

THE PRESIDENT: Maybe just overnight. I can't tell.

Q: Live aboard the train?

THE PRESIDENT: We were talking last night over dinner table and Mrs. Roosevelt suggested taking a little

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camping trip and everybody living in tents for about a week.

Q: We did that at Lake Crescent.

THE PRESIDENT: Mrs. Roosevelt said she would arrange the whole thing.

MR. McINTYRE: I think it would be swell. We would arrange to have heat in them.

THE PRESIDENT: It would only be a one-night stand. We would have all sorts of delicious foods, such as flapjacks and coffee and hot dogs.

Q: (Mr. Trohan) I will take the Miami-Biltmore. That is my idea of slumming.

THE PRESIDENT: It would be up in the Adirondacks or something like that, and a good time will be right after election, around the 10th of November. It would snow most nights and be just around ten degrees below zero. It would be the finest preparation for that winter in Washington.

Q: (Mr. Trohan) It sounds like you have been talking to the Colonel.

THE PRESIDENT: No, it was the Missis that thought this up. She thought it was a grand idea. She guarantees to go on the trip and make all the arrangements.

Q: (Mr. Trohan) Mac and I say, 'No."

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THE PRESIDENT: How about it, Tommy (Qualters)? Don't you think it is a good idea?

MR. QUALTERS: I think it is a good idea.

Q: Bring the Missis along with you, too, Tommy. (Laughter)

THE PRESIDENT: My Missis was serious about it.

Q: (Mr. Trohan) So am I.

Q: (Mr. Durno) I think this Mobile fishing trip is a better idea.

Q: (Mr. Trohan) Miami-Biltmore. I like Carl Byoir.

THE PRESIDENT: We haven't had a hunting trip in the woods yet. We ought to do it.

Q: Take that Timberline Lodge on Mt. Hood. I will go for that. That is the way I like to hunt.

THE PRESIDENT: But this calls for no investment on the part of the Government. We will borrow the tents from the Army. We will have an Army truck to carry them and we can teach you the first night how to set up the tents and then how to strike them in the morning. It starts the blood going in the morning when you strike a tent. Of course, this all depends on Bob Allen going.

Q: If you get him to go along, everybody will go to see the event.

Q: Then we will have to have rifles on this trip in order to shoot.

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THE PRESIDENT: Shoot?

Q: Deer.

THE PRESIDENT: Oh, deer. I was wondering who.

I wish I did have some news, but there really isn't anything. I am having a good time doing a lot of spade work.

MR. TROHAN: Thank you, Mr. President.

)A, baN-dȧ', **Julien** (1867–1956), French and novelist. He was born in Paris on 26, 1867, and graduated from the University ris in 1894. His first major work, *Mon pre-testament,* appeared in 1910, followed by rst novel, *L'ordination,* in 1912.

enda was a leader of the antiromantic move- in French criticism, and in *Le Bergsonisme, ne philosophie de la mobilité* (1912) and *succès du Bergsonisme* (1917), he opposed hilosophical ideas of Henri Bergson. One of most successful works is *La trahison des* (1927), in which he contends that it is l treason to permit political considerations arp intellectual judgment. (*La trahison* was shed in English translation in Britain as *Great Betrayal,* and in the United States as *Treason of the Intellectuals,* both in 1928.) rationalism influenced such writers as T.S. and D.B. Wyndham Lewis. Benda died ontenay-aux-Roses on June 7, 1956.

DA, ben'də, **Wladyslaw Theodor** (1873–), Polish-American painter and illustrator. was born in Poznán, Poland, on Jan. 15, . He studied at the Kraków Academy of Art to 1899, when he settled in the United s, becoming a citizen in 1911. He made y strikingly original illustrations for books for such periodicals as the *Century Maga- Scribner's, Cosmopolitan, McClure's,* and *ier's.* For use in the theater he created a new of mask known as the Benda mask. He died ewark, N.J., on Nov. 30, 1948.

IDER, ben'der, **Chief** (1883–1954), American ball player, who was elected to the National ball Hall of Fame in 1953 for his pitching with the Philadelphia Athletics. A Chip- a Indian, *Charles Albert Bender* was born in nerd, Minn., on May 5, 1883, and attended Carlisle (Pa.) Indian School and Dickinson ege. From 1903 to 1914 he won 193 regular on games and 6 World Series games for the With Baltimore (Federal League) in 1915 Philadelphia (National League) in 1916–7, he raised his total major league victories 12 against 128 losses. Bender coached at the . Naval Academy in 1924–1928. He died in adelphia on May 22, 1954.

BILL BRADDOCK, *New York "Times"*

NDIGO, ben'di-gō, a city in Australia, is an ortant gold mining center. Formerly known andhurst, the city is located in the center of oria state, 80 miles (129 km) northwest of bourne. It was founded in 1851, when gold discovered in the surrounding area. From a ing settlement it expanded rapidly, becoming ty in 1871. Bendigo is now a busy manufac- ng city and rail center. Its products include e and beer, woolen textiles, leather goods, pottery. Population: (1961) 30,195.

NDIX, ben'diks, **Vincent** (1882–1945), Ameri- engineer, inventor, and industrialist. He is wn especially for his work in developing im- ved automobile components and for his pio- ring activities in the aviation industry.

Bendix was born in Moline, Ill., on Aug. 12, 2. At the age of 16 he went to New York y and studied mechanics and engineering. hin a decade he had organized his own auto- bile production company, and by the age of 30 he had developed the Bendix drive for automobiles. This drive made practical for the first time the use of self-starters in automobiles. In the same period the brake company that he organized began the first mass production of four-wheel brakes. Other products associated with Bendix are generators, magnetos, a radio-direction-finding apparatus for oceangoing vessels, an automatic home washer, and landing gears for airplanes.

In 1929, Bendix combined several companies to form the Bendix Aviation Corporation. Under his direction it became a manufacturing concern of world importance. Besides aviation, marine, and automobile equipment, the corporation manufactured a variety of radio and radar devices. Bendix also showed his interest in aviation by founding the Bendix Transcontinental Air Race (1931), for which he donated the Bendix trophy.

Bendix resigned as board chairman of the aviation company in 1942 to form Bendix Helicopters, Inc. He planned to develop a four-passenger helicopter for mass production, but his death in New York City on March 27, 1945, came before he could achieve this aim.

BENDS, bendz, is an illness in which gas bubbles are present in body tissues. The bubbles press on tissues and obstruct blood vessels, causing pain or damage to vital organs. Also known as *decompression sickness, caisson disease,* and *aeroembolism,* the disease results from exposure to rapidly decreasing atmospheric pressure. Its most frequent victims are tunnel workers and deep-sea divers, who must surface after prolonged periods of breathing compressed air, and flyers of unpressurized aircraft that ascend higher than 25,000 feet (7,500 meters).

The cause of bends can be explained by simple physical principles. Since a caisson worker breathes air at high pressure (one atmosphere for each 33 feet, or 10 meters, of descent below sea level), additional nitrogen is forced into solution in his body, especially in fatty tissue. If he remains for several hours and then ascends to sea level too quickly, the extra nitrogen bubbles out of solution. Nitrogen is less diffusible than carbon dioxide and oxygen; thus the body is not able to equilibrate rapidly its nitrogen content with that of the air outside. The result is bends.

The symptoms of decompression sickness have been given rather colorful names. The "bends" is the severe pain in muscles and joints that contorts the limbs, while the "chokes" describes a difficulty in breathing and a constricted feeling in the chest. Sometimes there is a loss of equilibrium, called the "staggers." Involvement of the brain and spinal cord can result in paralysis or even death. Extreme fatigue, skin rashes, and itching also are common symptoms.

Most symptoms are reversible if treatment is begun very early. The patient first is "recompressed"—returned to high atmospheric pressure—in a device designed for the purpose. He then is slowly "decompressed"—brought to sea-level air pressure. Preventive measures include replacing nitrogen in the compressed air with the more easily diffusible helium; controlling the rate of decompression as a caisson ascends; and excluding obese and other vulnerable individuals from such work.

IRVING SOLOMON, M.D.
Mount Sinai School of Medicine, New York

UW

David McCulloch bk on Johnstown flood? F159.J7 M16 (Sum)

ph copy: pp. 52-56
76-7
243-49
100

p. 306--was there hanging in Britain at the time?

UW

David McCulloch bk on Panama Canal--Path Between the Seas? F1359.C2 M33

--check Gatun (?) Dam

--check earthfill totals

ph copy: p 485
550-554

NYTBR 6/11/95

No Sea Too Great

A biography of Admiral Lord Fisher, who transformed the Royal Navy from sail to submarine.

FISHER'S FACE

Or, Getting to Know the Admiral.
By Jan Morris.
300 pp. New York:
Random House. $23.

By Nigel Nicolson

WHEN John Fisher (always known as Jacky) died in 1920, people felt they were mourning the greatest British admiral since Nelson, but today he is so far forgotten that there is no memorial to him anywhere except on his gravestone. He commanded no fleet in action, experienced only two minor battles as a junior officer, and looked more like a Japanese deckhand than an admiral. Yet in his lifetime Jacky Fisher was the hero of heroes, the toast of his sailors and the favorite of his King; for it was he who transformed the Royal Navy from sail to steam, from wood to iron, and turned it into the most formidable floating arsenal the world had ever known, just in time to dominate the German Navy in World War I.

Jan Morris, having hero-worshiped Fisher for decades and visited almost every building where he spent a night, has at last fulfilled her ambition to write his life. As three biographies of Fisher had been previously published, she has adopted an original and highly attractive method. "Fisher's Face" is a book about his remarkable character, illustrated by incidents in his career — more than a chronological narrative of what he achieved. The reader will not be fed technical details of warships or naval strategy, and will be spared footnotes, appendixes and lengthy bibliographies. The book is so human a portrait of the man that Ms. Morris can elaborate actual events by inventing the detail, and at one point imagines herself bending over the admiral, wounded in an imaginary battle, "pressing the water to his lips, and kissing his forehead with a tear." This is the only scene where she transgresses too far the bounds of biography. The rest of the book is convincing and enormously entertaining.

Jan Morris believes that Jacky Fisher's merits outweighed his manifold faults, but not by much. "On the whole," she writes, "I would rather love him than be him." She loves him for his defiance of authority, his gaiety, his sympathy with his sailors (for instance, by abolishing flogging as a punishment), his love of women, his capacity for hard work, his inventiveness, his dedication and the pleasure that he took in dancing, which was so great that he had the quarterdeck of his flagship relaid as a dance floor.

But against all those likable qualities one has to place some despicable faults. He was a reckless philanderer (though beyond a certain point platonic), and toward the end of his life treated his loyal wife atrociously. He would claim credit for other men's achievements, like the design of the battleship Dreadnought. "He certainly had no compunction," says Ms. Morris, "in sacking people, humiliating them, slandering them and plotting behind their backs." She cites a horrifying instance. When Fisher was commander in chief in the Mediterranean, he went ashore at Malta from his flagship ahead of the rest of the fleet to watch the ships maneuver to their buoys. He then sent a signal, by flags visible to the entire fleet, ordering the next senior admiral, his second in command, to take his ship out to sea again and "return to moorings in a seamanlike manner," simply because Fisher hated him. It is astonishing that such a man, who made many enemies and was so unpredictable, rose to the supreme command of the navy.

He succeeded because he could be very charming when he wished, and was so professional a sailor. While most of his contemporaries hankered for the days of sail, as cavalrymen regretted the advent of tanks, Fisher loved the new technology. He made himself an expert in ship construction, oil-fueled engines, torpedoes, submarines (which many old admirals considered "unfair"), and eventually radio and naval aviation, and he created a modern fleet that became a symbol of Britain's colossal self-esteem in the first years of this century. He foresaw the war with Germany, and looked forward to encountering its fleet in a super-Trafalgar in the North Sea. The battle of Jutland in 1916 was nothing like so dramatic. But before Jutland he had quarreled with Winston Churchill, who was the political head of the Admiralty while Fisher was its professional head. Having initially approved the plan to cut Turkey off from its European allies by taking over the Dardanelles and the Bosporus, Fisher refused to support it when things went wrong, and then resigned, leaving Churchill, his closest friend, to take the blame. It was an act of gross disloyalty, and a disgraceful conclusion to Fisher's career.

His reputation never really recovered. Now Jan Morris, with the advantage of hindsight, the memories of the few survivors of Fisher's regime and a gentle admiration for this most maverick of men, has shown us that for all his shortcomings Fisher was a great and, in his own peculiar way, a noble man. Hers is a most worthy biography. □

Nigel Nicolson's books include "Portrait of a Marriage" and "Napoleon 1812."

dents to move their hands over a glazed plate covered with soot from a candle to produce designs. In China a Manchu artist, Kao Chi P'ei (1672–1732), brought a new freedom to watercolor work by using his fingertips and long fingernails to execute albums of finger paintings. Several of his originals are now in the Boston Museum of Fine Arts.

Current art attitudes do not limit the student or the artist to traditional uses of any medium. Innovations in finger painting include combinations of media. Heavy wax crayon designs on dry paper resist washes of finger paint applied afterward. Crayon can be applied as an overlay on a dry painting to provide color or texture where it is needed. In addition, tools can be used in combination with the fingers or hands for varied impressions. Glazed paper can be replaced with canvas or wooden boards, which provide stronger and more permanent supports for finger paint. Any change in the medium or in the painting technique is acceptable if it serves individual needs for personal expression.

VICTORIA BEDFORD BETTS
Author of "Exploring Finger Paint"

FINGERING, in music, is the system that determines what fingers should be used in playing an instrument. It may also refer to the fingers that the notation calls for in the performance of particular passages or compositions. This article is concerned with the fingering of keyboard instruments (organ, clavichord, harpsichord, and piano). The standard system for keyboard instruments numbers the fingers from 1 to 5, beginning with the thumb.

Historically, keyboard fingering falls into two periods. Early systems (before 1750) exploited the natural shape of the hand, using the three middle fingers and excluding, where possible, the thumb and little finger. Early treatises on keyboard playing place the strongest finger on the stressed note, the weaker fingers on unstressed notes. Modern practice (since 1750), however, demands equal strength and agility in all five fingers and the free use of the thumb on black and white keys.

In contrast to modern practice, early fingering was related directly to phrasing. Because the basic phrase unit was two notes in the sequence strong-weak or weak-strong, with intervening silences as important aspects of the rhythm, frequent crossings of the middle fingers were possible. A basic feature of modern style, however, is the "continuous *legato*." Thus, modern fingerings stress smooth transitions of hand positions and the use of the thumb as a pivot.

The element of touch also influences fingering. Most early instruments had light actions, and the required technique was a clawlike withdrawal of the finger into the palm of the hand after it had stroked the key. The heavy actions of modern pianos make the old system of paired fingerings unworkable.

Early tuning systems limited usable tonalities to those with few sharps or flats; consequently, few black keys were used. This made possible the infrequent use of thumb and little finger on white keys and the virtual avoidance of their use on black keys. The modern tuning system makes all tonalities playable, with extensive use of black keys and the free use of all five fingers.

ADRIENNE FRIED
Hunter College

FINGERPRINTING is the process of securing an impression of the papillary ridges of the fingers, for the purpose of identification. The science of fingerprinting (technically known as *dactyloscopy*) provides the only infallible means of positive identification known to man. Fingerprints are usually obtained by "rolling" the first joint of each finger over an inked surface and then lightly pressing the inked portion onto fingerprint cards, on which the ridge patterns made by all 10 fingers can be studied through a magnifying glass for the purpose of classification and of identification.

Fingerprinting is particularly suited to the identification of criminals because the search for a prior criminal record need not depend on the name or personal appearance of the subject, but solely on the pattern shapes of the ridges and their positions on the 10 fingers. Special techniques are used for "lifting" latent prints at the scene of a crime.

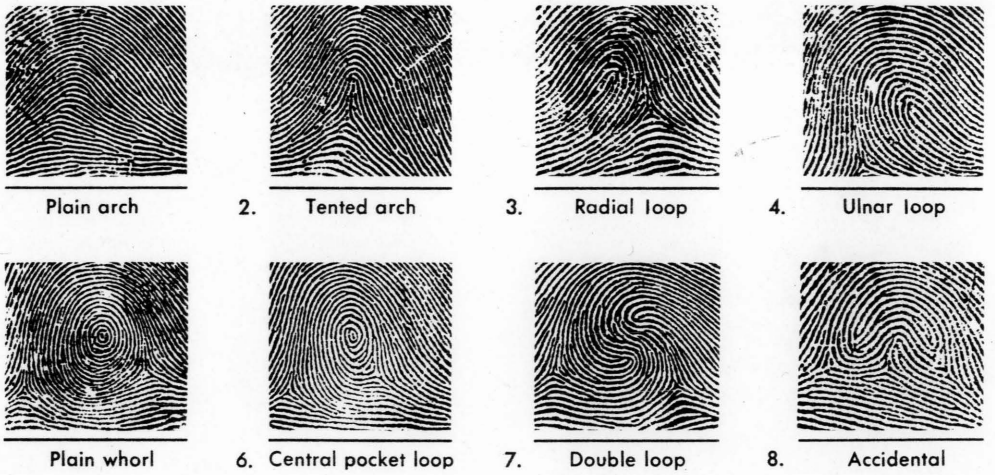
History. Prehistoric carvings resembling fingerprint patterns have been found on a cliff in Nova Scotia and on the walls of a Neolithic burial passage, or dolmen, on Gavr'inis Island off the west coast of France. Prints have also been found on ancient clay tablets and on some old documents, although the exact significance of these impressions is not known.

The appearance of fingerprints on certain old official documents in Asian countries probably represents a rudimentary legal signature, rather than purposeful identification by means of fingerprinting.

The first known scientific observations particularly relating to fingerprints were made in the 1680's by Marcello Malpighi, professor of anatomy at the University of Bologna, and Dr. Nehemiah Grew, an English physician. The English engraver and author Thomas Bewick (1753–1828) made wood engravings of patterns of his own fingers and published them as colophons, or "trademarks," in his books. In 1823, Dr. J. E. Purkinje, professor of anatomy at the University of Breslau, published a treatise commenting on the diversified ridge patterns, noting that they seemed to follow nine general pattern types. He mentioned also the ridge formations of the human palm and the hands of monkeys. There still was no indication on the part of these observers that the ridges on the fingers could be adapted to personal identification.

Fingerprint identification, as we now know it, received its first practical impetus in 1880 when the English magazine *Nature* published a letter from Dr. Henry Faulds of the Tsukiji Hospital in Tokyo, Japan. Dr. Faulds had observed the wide diversity among individual fingerprint patterns and the fact that these patterns remain unchangeable throughout life. It was also suggested that chance prints found at a crime scene might possibly identify the offender. Soon thereafter, Sir William James Herschel, a British official in Bengal, India, wrote in *Nature* that he had used fingerprints for 20 years to identify government pensioners, as well as prisoners committed to jail. Neither Faulds nor Herschel, however, had developed any method of classification that would make practicable the filing of fingerprint records by law enforcement agencies.

The first extensive collection of fingerprint records was probably that made late in the 19th century by Sir Francis Galton (q.v.), an English scientist pursuing the study of heredity. After



Fingerprints are divided for identification into eight types of patterns, known as the Henry system.

extended investigation, he established conclusively the two basic facts on which fingerprint identification rests: the ridge arrangement on every finger of every person is different; the ridge arrangement remains constant throughout one's life. This work so impressed the British government that a committee was appointed to consider the advisability of adopting fingerprinting as a method for identifying criminals. Sir Edward Richard Henry, who later became commissioner of Scotland Yard, was among those appointed to the task.

While this study was in progress, the Argentine dactyloscopist Juan Vucetich claimed to have made his first criminal identification through the medium of fingerprints. Encouraged by the practical value of dactyloscopy, Vucetich developed the system of classification now used in nearly all Spanish-speaking countries.

By 1901, Henry had completed his study for the British government and successfully introduced his system in England and Wales. The Henry system of classification proved to be a simpler yet more comprehensive method for filing and classifying prints than the one developed by Vucetich. Both systems use all 10 fingers as a unit basis. The Henry system, in its extended and refined form, is followed in nearly all English-speaking countries of the world.

In the United States the first practical use of fingerprints for criminal identification was made by New York State authorities, who began to fingerprint prisoners in 1903. On Nov. 2, 1904, the warden of the United States penitentiary at Leavenworth, Kans., was authorized to take fingerprints of federal prisoners. Meanwhile, a visiting officer of Scotland Yard had taught the Henry system of classification to members of the St. Louis police department. Other police agencies adopted fingerprinting in close succession, replacing their rogues' galleries (based on photographs) and Bertillon records (based on physical description and bone structure measurements) with collections of infallible and unchanging fingerprints.

The trend was accelerated by the International Association of Chiefs of Police, which in 1896 had established a Bureau of Criminal Identification at Chicago. As its members began adopting dactyloscopy, copies of fingerprints taken from prominent criminals were sent to this bureau, thereby creating a valuable central collection of criminal records.

Identification Division of the FBI. In 1924, as a result of a growing demand for a national fingerprint clearinghouse, the fingerprint records of the International Association of Chiefs of Police, as well as the collection maintained by the federal penitentiary at Leavenworth, Kans., were combined under the administration of the Federal Bureau of Investigation (FBI). A total of 810,188 fingerprint cards and a staff of 25 employees formed the nucleus for this new government-sponsored project.

The Identification Division of the FBI contains the largest collection of fingerprint records in the world. As of March 1, 1969, these records totaled 191,225,760 and represented 83,089,732 individuals. The use of fingerprint records exclusively for criminal identification has long since been outmoded, and indeed most of the records on file in the FBI Identification Division are civil in nature. These include the fingerprints of armed forces personnel, federal employees, and civilians wishing to have their fingerprints on record as a protection against accident, amnesia, or loss of identity through disaster. Indeed, one amnesia victim was identified after a set of his prints (taken more than 50 years before) was located through a search of FBI files on former servicemen.

Fingerprint cards of criminals are maintained separately and provide law enforcement agencies throughout the country with a means of locating wanted criminals. Posting a wanted notice with the FBI's Identification Division ensures that an agency will be notified if a fingerprint received later should indicate the whereabouts of the wanted criminal. In this manner, an average of more than 2,700 fugitives per month are iden-

tified by the Identification Division of the FBI.

Notices are also posted on missing persons, and these help law enforcement agencies find for relatives and friends many of the thousands of persons who disappear each year. However, criminal or arrest data contained in the files of the FBI Identification Division are available only to duly constituted law enforcement and governmental agencies, not to private individuals.

The FBI also exchanges fingerprint identification data with many other countries. This service is most valuable in curbing the international activities of criminals. On the other hand, such an exchange of information led to the exoneration of a man who was thought to be an escaped Nazi war criminal. Detained by Guatemalan authorities, the suspect (who said he had once lived in the United States as an alien) was fingerprinted, and the FBI, on request, was able to verify that this person was not the Nazi war criminal.

How Fingerprints Are Taken. Fingerprints in the United States are taken on a standard 8-inch-square card. The Henry system of classification requires that they be taken in the following sequence: thumb, index, middle, ring, and little finger prints of the right hand being placed above those of the left hand.

Two sets of the person's fingerprints are placed on the card. "Rolled" impressions of the 10 fingers are placed in the center of the card and "plain" impressions are placed at the bottom. The ridge formation extends about halfway around the finger, and some of the areas needed for classification frequently appear toward the edges. Consequently, it is necessary to roll the finger—that is, place the end joint flat on its side and roll it completely to the other side before lifting it from the card—in order to record the complete area. The "plain" impressions are taken by holding the fingers close together and printing them flat, the two thumbs being placed in the center. They serve to check the correct sequence of the "rolled" prints and may also aid in the classification if any of the "rolled" prints are blurred.

The equipment for taking the prints consists of a tube of black fingerprint or printer's ink, a soft rubber roller, an inking plate, and possibly a card holder. The fingerprint ink is a pastelike substance that dries rapidly and offers a permanent black contrast. (Ordinary writing ink and stamp pad ink are not suitable for taking prints.) In taking the prints, a few daubs of the ink are placed on the inking plate and rolled to a uniform thin film on the surface. The fingers are then inked individually and placed on the fingerprint card, using only enough pressure to ensure good contact with the card.

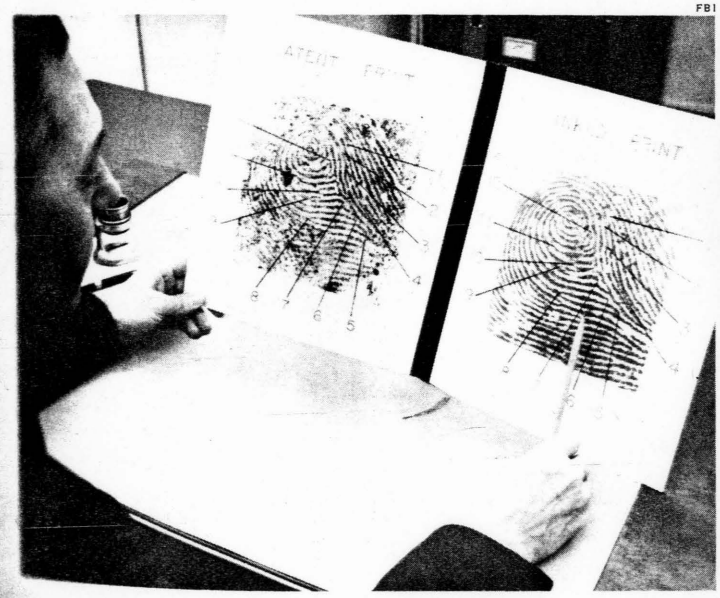
Fingerprint Classification. The remarkably rapid process of classification involves the sorting of fingerprints into a great number of file groups by their general shapes or contours, called "patterns," by the positions or distribution of the patterns in the 10 fingers, and by their "relative" sizes. This resembles alphabetical name filing in which the letters are recognized and sorted by shape and placed in a standard sequence.

Under the Henry system, as practiced by the FBI, all finger impressions are divided into the following types of patterns: (1) arch, (2) tented arch, (3) radial loop, (4) ulnar loop, (5) plain whorl, (6) central pocket loop, (7) double loop, and (8) accidental.

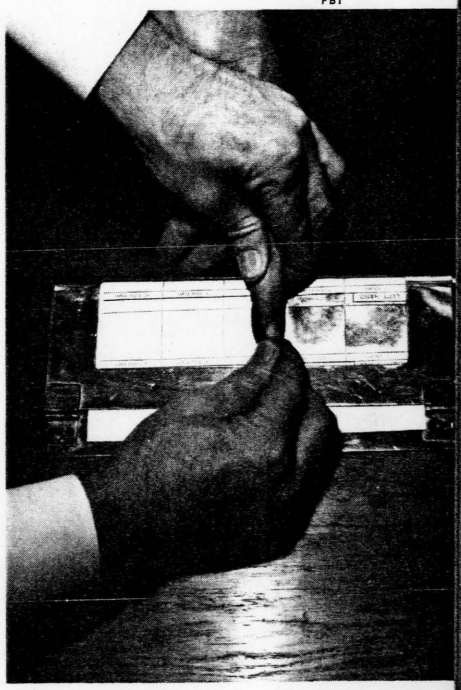
By studying the central portion of each finger impression, described as the pattern area, it is possible to classify each of the 10 fingers into a definite group. The 10 fingers then are considered as a unit to obtain the classification formula, which permits the rapid filing of fingerprint records. Because cards bearing similar fingerprint patterns are filed together, the fingerprint expert, even though he is working in a bureau containing millions of fingerprint records, is able to establish an identification in a few minutes.

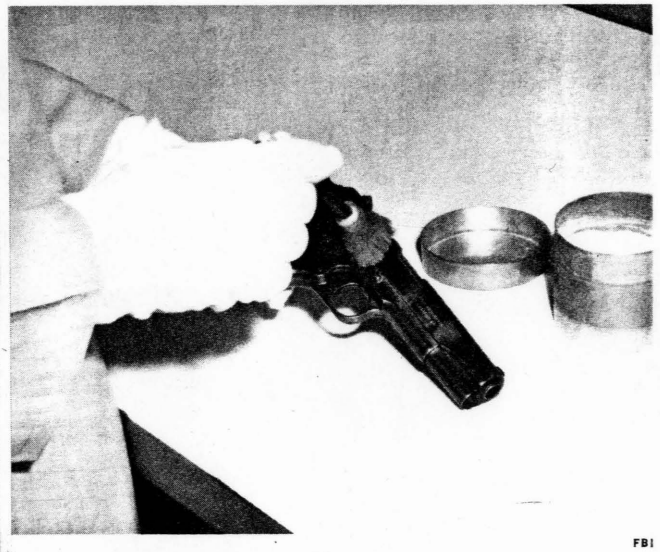
FINGERPRINT records are maintained in an FBI central file under two categories: criminal and civil. (*Right*) Prints of each finger are inked on card. (*Below*) Latent print from crime scene is matched with crime file print.

FBI



FBI





FBI

LATENT PRINTS are lifted from weapon by dusting fingerprint powder on surface with a soft-bristle brush.

No two persons have ever been found to have identical fingerprints. Twins (of the same sex and bearing great physical resemblance), triplets, and even quadruplets have completely different ridge arrangements. All 10 fingerprints of each individual are without exception different from one another.

A few criminals, in order to evade identification, have been known to mutilate or destroy their fingerprint patterns. This has been attempted through the application of caustic materials and by surgical excision or displacement of the ridged skin. Such procedures usually require professional advice, are generally costly, and are extremely painful. Persons aiding a criminal to evade apprehension in this way may themselves be subject to criminal prosecution. Any person taken into custody whose fingers indicate efforts at mutilation is usually afforded immediate special attention by law enforcement officers, in order to properly identify him. There is no known case in which the mutilation of the fingerprints has successfully concealed a criminal's identity.

The concept of fingerprint automation currently being studied involves converting the actual fingerprint ridge pattern into alphanumeric (letter-number) formula. This can possibly be done by a "scanning" technique, which entails the perusal of the ridge patterns by a small spot of light. The reflection from the light spot may then be recorded electronically and it is hoped the variations will indicate the location and direction of ridge endings and branching ridges. The data so obtained will be used to match small portions of each fingerprint by using computer programs. A number of problems such as changing contrasts and variations in physical position must be overcome. However, it is felt the concept and tools needed to computerize fingerprint searching techniques have been developed.

Crime Scene Fingerprints. Fingerprints at the scene of the crime are of utmost importance in criminal investigative work because they may result in positive identification of the culprit, even though there are no eyewitnesses. Often a single—even fragmentary—impression forges an essential link in the chain of evidence connecting the criminal with the crime.

Fingerprints found at crime scenes are referred to as "latent" (hidden) impressions, because in most cases they are difficult or impossible to see and require "development" to make them visible for preservation as evidence, and for comparison with fingerprints of known persons. Each ridge of the finger is dotted with a line of sweat pores, from which perspiration normally exudes, eventually accumulating in an amount sufficient to cover the ridges. When an object is touched, an outline of the ridges of the finger is left on it, in an almost invisible deposit of perspiration. Although there are no sebaceous glands in the ridges themselves, oily matter adhering to the fingers may also be contained in the latent print.

Latent prints may be left on any smooth surface, and those that are present on non-absorbent surfaces are readily made visible by dusting them with fingerprint powder, which adheres to the moisture or oily matter present in the latent prints. The powders are finely ground and made in a variety of colors to contrast with the surface being examined. The types most commonly used are gray powder, composed generally of aluminum and chalk, and black powder, which contains lampblack. To dust a latent print the powder is applied with a soft-bristle brush.

Latent prints left on paper or cardboard dry rapidly and are best developed by the use of chemicals. Those prints that contain a large amount of oily matter will appear when they are exposed to iodine vapor in a small cabinet. Absorption of the vapor turns the ridges a yellowish brown color. Because the fumes evaporate rapidly, iodine prints must be photographed quickly, although they can be "fixed" to preserve them for a considerable time.

Many latent prints on paper and cardboard can be developed by dipping the specimens into a solution of silver nitrate. The prints, which become visible through the action of light in breaking down the silver compound formed in them, have a reddish brown appearance.

An organic chemical, ninhydrin, is used also as a latent print developer on paper surfaces, producing an impression of a maroon or purplish color. Through the use of these chemicals, it is possible to develop latent prints many weeks, or even months, after they were made.

No other methods of developing latent prints have proved so efficient as those just mentioned. (A few novel methods include the application of magnetic powder to the print with a wandlike device, the use of powders which fluoresce under ultraviolet light, and the use of powders applied by pressure spraying.)

Latent prints are preserved by the criminal investigator for comparison, and as evidence, by "lifting" or by photographing. Powdered prints are "lifted" on tape having a tacky surface, for which both transparent and opaque tapes are commonly used. The prints are preferably photographed directly on the object. Either the photograph or the "lift" may be used in court as fingerprint evidence.

Single Fingerprint Files. Almost all large identification bureaus also set up "single fingerprint" files. These files contain the separate impressions of each of the 10 fingers belonging to well-

known professional criminals. As previously indicated, the basis of the Henry system of classification is the use of all 10 fingers as a unit. However, in a "single fingerprint" file, each fingerprint is classified individually, so that an identification can be made from a single latent impression left by a criminal at the scene of a crime.

Identifying Fingerprints. The fingerprint classification tells where to look in the file for a set of prints identical with one which is being searched. After a set is found that has a similar appearance, the two sets must be compared to determine if the shapes and relative positions of the ridge characteristics match. A comparison of one finger in each set is sufficient for this purpose, as fingerprints do not change.

Actually, a small portion of any fingerprint is enough to establish an identification; a complete print is not needed. Most latent prints are fragmentary and require careful examination by experts to establish identity.

Palm Prints and Footprints. Any ridged area of the hand or foot is useful for identification because the ridge detail is never duplicated in different persons. The only requirement is that the expert must have a known print with which to compare any questioned print. The toes bear ridge patterns similar to those on the fingers, but they occur in different frequencies in the digits. Classifiable toe prints are extremely difficult to obtain, however, owing to difficulty in manipulating the toes and frequently to the poor condition of the skin. The palms and soles bear a few patterns that in some respects resemble fingerprints, but they are not so easily classified. They are not so numerous as the patterns occurring on the 10 fingers, and it is unusual for the two palms or the two soles to contain a total of 10 patterns. For these reasons, palm prints and footprints are not adapted—as are fingerprints—to the setting up of a system of general record files.

However, relatively small files of these prints can be maintained on a classified basis. The FBI maintains a small footprint file of persons whose fingers have been amputated, and these serve the same identification purpose as fingerprints. Palm prints are routinely found on objects at crime scenes, as well as occasional footprints and toe prints. These can be as positively identified as fingerprints and have the same legal validity. (Many hospitals, as a matter of course, take footprints of newborn infants for identification.)

Little work has been done in such fields as lip print identification. The many creases are not sufficiently well defined to afford such a ready means of classification as that from fingerprints, although under optimum circumstances it is possible to make a lip print identification of an individual.

Court Testimony. The positive nature of fingerprint identification has been so well established that it has been long recognized by courts in the United States, as indeed in most countries. Fingerprint testimony must be presented by a person who is an expert in the field by virtue of his training and experience. In his appearance as a witness, he must satisfy the court that he is an expert in fingerprinting by establishing his knowledge of and experience in the science. Having done this, he may testify to his examination and identification of the prints in question. (Legal requirements, methods of testimony, and court practices differ among various countries).

Proper identification of the evidence in question is essential in every instance. The person who finds a latent print at the scene of the crime or on a piece of evidence must tag or mark the item in some manner for possible future identification in court. Likewise, the known fingerprints of the defendant must be attested to by the person taking the prints. For that purpose, he signs the fingerprint card at the time the prints are taken.

It has become a tradition in the courtroom for a fingerprint expert to produce a photographic chart, on which he points out various matching characteristics in the prints. These prints, having been enlarged many times, illustrate graphically his findings for the court and jury. Fingerprint evidence alone has been sufficient in a number of cases to convict a person of a crime.

Identification of Deceased Persons and Disaster Victims. The fingerprint files of the FBI have assumed increasing importance in identifying persons found dead either as the result of natural causes or foul play, as well as in the identification of victims of mass disasters, such as air crashes, explosions, fires, and marine accidents. The FBI for many years has maintained a Disaster Squad, which is dispatched on request to the scene of catastrophes to assist in identifying the victims positively and quickly. Remarkable success has been achieved in this field, due primarily to the enormous collection of fingerprint records on file in the FBI. Unfortunately the practice of fingerprinting in some countries continues to bear a criminal stigma; as a result, the fingerprint files in such countries are quite limited.

Bodies of persons who died from natural causes or accidents, or who were victims of foul play, are found frequently in a badly damaged, fragmented, or decomposed condition. Fingerprints are one of the most likely means of identifying such persons because the epidermal ridges often persist many weeks or months after death. The condition of the skin may preclude the taking of any legible fingerprints by local authorities. Under compelling circumstances and with the proper legal authority, hands or fingers of the deceased person may be forwarded to the FBI for expert examination.

Extensive treatment and preparation of the skin of a deceased person may be necessary to procure legible ridge detail. If the flesh of the fingers is still soft, fluids such as glycerin, embalmers' tissue builder, or water are injected to restore roundness to the fingers so as to remove wrinkled areas. In some cases the skin must be carefully removed, pared, and flattened. If the tissue is hardened or mummified, photographs from several different angles may be necessary. Sometimes the outer skin, or epidermis, completely separates from the fingers and is lost. Identifiable prints can be obtained from the inner skin or dermis, which bears papillae, or peglike protuberances, in rows that correspond to the ridges of the outer skin.

J. Edgar Hoover,
Former Director
Federal Bureau of Investigation

Further Reading: Collins, Clarence G., *Fingerprint Science: How to Roll, Classify, File, and Use Fingerprints*, ed. by Gerald D. Hunt (Custom 1985)

checking procedures, summer/fall '95 onward to final version of ms:

--ultimately go through all Ft. Peck file folders, filebox categories, yellow pad notes, and green binder of pics.

a spillway at one or both ends "of sufficient size to discharge the waste water during freshets, and sluices to regulate the supply for the canal." It was also important, he said, that the bed of the spillway be solid rock and that no water be permitted to pass over the top of the dam. The design of the dam was worked out by a young state engineer named William E. Morris, who approved the location because, as he stated in a report made in 1839, it was in an area where there was enough drainage to provide a "certain" supply of water. He too proposed an earth dam 850 feet across the top and 62 feet high. He estimated that it would take a year to do the job.

The contractors chosen were James N. Moorhead of Pittsburgh and Hezekiah Packer of Williamsport. According to lengthy studies made by civil engineering experts years later, they did a competent job. Certainly they went about it with considerable care and patience and despite continuing delays. For, as it turned out, fifteen years passed before the dam was finished.

In 1842 work was halted because the state's finances were in such bad shape that there was simply no more money to continue the job. For the next four years nothing was done. Then when the work did start again, it was only for another two years. A local cholera epidemic caused "a general derangement in the business," until 1850, when the project again resumed, and for the final time.

The construction technique was the accepted one for earth dams, and, it should be said, earth dams have been accepted for thousands of years as a perfectly fine way to hold back water. They were in fact the most common kind of dam at the time the South Fork work began and they were the most economical. The basic construction material was readily available at almost any site, it was cheap, and it required a minimum of skilled labor. Virtually any gang of day laborers, and particularly any who had had some experience working on railroad embankments, was suitable. But since the basic raw material, earth, is also highly subject to erosion and scour, it is absolutely essential that a dam built of earth, no matter how thick, be engineered so that the water never goes over the top and so that no internal seepage develops. Otherwise, if properly built and maintained, an earth dam can safely contain tremendous bodies of water.

The South Fork embankment was built of successive horizontal layers of clay. They were laid up one on top of the other after

each layer had been packed down, or "puddled," by allowing it to sit under a skim of water for a period of time, so as to be watertight. It was a slow process. And as the earth wall grew increasingly higher, it was coated, or riprapped, on its outer face with loose rocks, some so huge that it took three teams of horses to move them in place. On the inner face, which had a gentler slope, the same thing was done, only with smaller stones.

The spillway, as Welsh had stipulated, was not cut through the dam itself, but through the rock of the hillside to which the eastern end of the dam was "anchored." The spillway was about 72 feet wide. The over-all length of the breast was just over 930 feet. The width on top was about 20 feet. The thickness at the base was some 270 feet.

At about the exact center of the base, there were five cast-iron pipes, each two feet in diameter, set in a stone culvert. They were to release the water down to South Fork, where it would flow on to the Johnstown basin by way of the Little Conemaugh. The pipes were controlled from a wooden tower nearby. On June 10, 1852, the work on the dam was at last completed; the sluice pipes were closed and the lake began to fill in. By the end of August the water was 40 feet deep.

But about the time the dam was being finished, J. Edgar Thomson, who was then chief engineer for the up-and-coming Pennsylvania Railroad, was making rapid progress with his daring rail route over the mountains, which included what was to become famous as the Horseshoe Curve. The canal was about to be put out of business.

The Pennsylvania was racing to complete a route west to compete with the New York Central, the Erie, and the B & O, which were each pushing in the same direction. The last part of the run, from Johnstown to Pittsburgh, was ready in late 1852. On December 10, six months after the South Fork dam had been finished, a steam engine made an all-rail run from Philadelphia to Pittsburgh. J. Edgar Thomson became president of the road about the same time, and the company was on its way to becoming within a very few years the biggest and far and above the most powerful single force in the state (and in the Statehouse); the biggest customer for nearly everything, but especially coal, iron, and steel; the biggest employer; and the biggest influence on the way people lived from

one end of Pennsylvania to the other. By the end of the '80's it would be the mightiest of the nation's many mighty railroads.

The effect of the new railroad on the state's troublesome, costly, and beloved canal system was disastrous—almost immediately. Within two years after the railroad opened, the legislature voted to put the "Main Line" up for sale for not less than $10 million. Understandably there were no takers. The one likely prospect was the Pennsylvania itself, which could readily use the right of ways. Three years later the sale was made, with the Pennsylvania paying $7.5 million for the system, which included the Main Line, the Portage Railroad, and, as it happened, the South Fork dam.

Having no use for the dam, the railroad simply let it sit. Nothing whatsoever was done to maintain it. In fact, from 1857, the year the railroad took possession, until 1879, twenty-two years later when the Pittsburgh men took over, the dam remained more or less quietly unattended, moldering away in the woods, visited only once in a while by fishermen or an occasional deer hunter.

And it was only five years after the state sold it to the Pennsylvania that the dam broke for the first time.

In the late spring of 1862, about the time the Union Army under McClellan was sweating its way up the blazing Virginia peninsula, for a first big and unsuccessful drive on Richmond, the mountains of Pennsylvania were hit by heavy thunderstorms. Hundreds of tiny creeks and runs and small rivers went roaring over their banks, and in Johnstown the *Tribune* ran the first of its musings on what might be the consequences should, by chance, the dam at South Fork happen to let go. Eight days later, on June 10, the dam broke.

The break was caused by a defect in the foundation near the stone culvert. The accepted theory locally was that various residents had been stealing lead from the pipe joints during the years the dam had been abandoned, that serious leaks had been the result, and that the break had come not long after. Exactly how big the break was is not known, as no records were made and no photographs were taken. The important fact was that though there was much alarm in the valley below the dam, the break caused little damage since the lake was less than half full, the creeks were low, and a watchman at the dam, just before the break, had released much of the pressure by opening the valves. (It was also somewhere

along about this time that the wooden tower for controlling the discharge pipes caught fire and burned to the ground.)

From then on until the Pittsburgh sportsmen appeared on the scene seventeen years later the lake was no lake at all, but little more than an outsize pond, ten feet deep at its deepest point. At the southern end, grass quickly sprouted across acres and acres of dried-up lake bed and neighboring farmers began grazing their sheep and cattle there.

In 1875 Congressman Reilly, who had spent most of his working life with the Pennsylvania in nearby Altoona, and who must have thereby known about the dam for some time, bought the property and, like the Pennsylvania, did nothing with it. He just held on to it, apparently on the look for another buyer, which he found four years later in Benjamin Ruff. But before selling at a slight loss to Ruff, he removed the old cast-iron discharge pipes and sold them for scrap.

Ruff's idea of what to do about the dam was relatively simple and seemed realistic enough at first. He would rebuild it to a height of only forty feet or so and cut the spillway down some twenty feet deeper to handle the overflow. But when he found that this would cost considerably more than repairing the old break and restoring the dam to somewhere near its original height, he chose the latter course.

The first indication in Johnstown and thereabouts that a change was in the offing above South Fork was an item in the *Tribune* on October 14, 1879. "Rumors" were reported that a summer resort was to be built by a Western Game and Fish Association. The next day there was a notice calling for fifty men to work, but no name of the organization was given.

For some reason or other, intentionally or otherwise, the Pittsburgh men kept the correct name of their organization from receiving any kind of public notice. It was a course of action which would later be interpreted as evidence that they had had no desire for anyone to come looking into their business in general, or their charter in particular.

Ruff set about repairing the dam by boarding up the stone culvert and dumping in every manner of local rock, mud, brush, hemlock boughs, hay, just about everything at hand. Even horse manure was used in some quantity. The discharge pipes were not

replaced, and the "engineering" techniques employed made a profound impression on the local bystanders.

The man immediately in charge of this mammoth face-lifting was one Edward Pearson, about whom little is known except that he seems to have been an employee of a Pittsburgh freight-hauling company that did business with the railroad and that he had no engineering credentials at all.

The entire rebuilding of the dam ended up costing the club about $17,000, and there was trouble from the start. On Christmas Day, 1879, only a month or so after work had begun, a downpour carried away most of the repairs. Work was discontinued until the following summer. Then, less than a year later, in February of 1881, once again heavy rains caused serious damages.

No one seems to have been particularly discouraged by all this, however. Along toward the end of March the lake was deep enough for the clubmen to go ahead with their plan to stock it. The first of the small steamboats was being assembled and the clubhouse was close to being readied for the grand opening. In early June the fish arrived by special tank car from Lake Erie, 1,000 black bass, which ended up costing the club about a dollar apiece by the time the last expenses were paid. According to the *Tribune*, which noted these and all other bits of news it could uncover concerning the club, only three of the fish died, "one of which was a huge old chap, weighing over three pounds."

The *Tribune* had also reported earlier that the Pennsylvania was planning to build a narrow-gauge spur from South Fork to the lake and that the clubmen were shopping about for land downriver from Johnstown where they intended to establish a private deer park of 1,500 acres. Neither claim was true, but both seemed perfectly reasonable and fitted in with the picture most Johnstown people had of the club and its members. Would not even the high and mighty Pennsylvania Railroad gladly provide any number of special conveniences for the likes of such men? Was not a deer park a fitting aristocratic touch for their new mountain domain? Certainly money was no problem. Were not the members of the club millionaires to the man?

The plain truth was that a goodly number of them were; quite a few of them, however, were not, and two or three of them were a great deal better than millionaires. But by the standards of most

men, they were, every last one of them, extraordinarily rich and influential. Yet, one of the curious things about the club is that the make-up of its membership, exactly who was who at the lake, was not generally known around Johnstown. If the club appears to have been rather cozy about its name, it was even more so about publicizing who belonged to it. Not until well after the events of May 31, 1889, was a full list of the membership published publicly. And quite a list it was.

The membership of the South Fork Fishing and Hunting Club, according to its initial plans, was never to exceed one hundred sportsmen and their families. The membership fee was $800. There was to be no shooting on Sundays; and those members who did not have cottages of their own were limited to a two-week stay at the clubhouse. As the summer season of 1889 was approaching, there was a total of sixty-one names on the membership roster.

The South Fork Fishing and Hunting Club, it should be kept in mind, was a most unostentatious affair by contrast to such watering spots of the time as Newport, Cape May, or the lavish new lakeside resort in New York, Tuxedo Park. There was no opulence. There were no liveried footmen, no Tirolean-hatted gamekeepers such as at Tuxedo, no "cottage" architecture to approach the likes of Newport. There was not even a comparison to be made, unless the South Fork group was to be measured by the per capita worth of its members—or the industrial and financial power they wielded —which, everything considered, was often the way such things were measured. On that basis the little resort on Lake Conemaugh was right in the same league.

One Pittsburgh newspaper called it the "Bosses Club," and aptly so. Carnegie's name by itself on the membership list would have been reason enough. And the same holds for Henry Clay Frick, for much had happened to the young "Coke King" since he had first joined with Benjamin Ruff to launch the club.

In 1881, while in New York, Frick had stopped by the Windsor Hotel on Fifth Avenue to pay a call on Carnegie and his mother and to talk a little business. (Frick happened to be on his honeymoon at the time, but he was not the man to let that, or anything else, stand in the way of progress.) When the meeting was over, he and Carnegie were partners in the coke trade, and from then on it did even better than before. By 1889 the H. C. Frick Coke Com-

To begin with, in order to provide room for a road across the breast, the height of the dam had been lowered from one to three feet. This would give enough width for two carriages crossing the dam to pass each other comfortably. But it also meant that the capacity of the spillway had been reduced, for now the bottom of the spillway was not ten or eleven feet lower than the crest of the dam, but perhaps only seven or eight feet. This was a very significant change, since it meant that a rising lake would start to go over the top of the dam that much sooner.

Then, too, a screen of iron rods, each about half an inch in diameter, had been put across the spillway to prevent the fish from going over and down into South Fork Creek. The screen was set between the heavy posts which supported the wooden bridge over the spillway. Under normal conditions the combination of posts and screens decreased the spillway capacity only slightly, but they had the potential of decreasing it a great deal should the screens become clogged with debris.

The third change was probably the most important of all. The dam sagged slightly in the middle, where the old break had been. Exactly how bad the sag was no one was able to say later for certain. It may have been only a foot or two, but according to one study, the crest at the center may have been as much as four feet lower than the ends. The center was where the dam should have been highest and strongest, so in the event that water ever did start over the top, the pressure would be at the ends rather than at the middle. Now the reverse was the case.

To have seen the sag with a naked eye, and particularly an untrained eye, would have been next to impossible. It is conceivable therefore that it went unnoticed by Ruff and the men who did the reconstruction work. Fulton took no note of it apparently; whether it would have been observed and corrected had experienced engineers been responsible for the reconstruction is a question no one can answer.

What it meant in practical terms was that the depth of the spillway was now only about four feet lower than the top of the dam at its center. In other words, if more than four feet of water were going over the spillway, then the lake would start running over the top of the dam at the center where the pressure against it was the greatest.

The fourth change was unnoticed by Fulton because it had not as yet taken place when he made his inspection. The water then, as he says, was only forty feet deep, which is about the depth it had been kept at during the old days before the first break in 1862. The club, however, brought the level of the lake up to where it was nearly brim full, meaning that the depth ran to sixty-five feet or thereabouts. In spring it sometimes rose even higher. With the lake that full, it was not beyond reason to imagine serious trouble in the event of a severe storm.

But, as both Fulton and Morrell had made abundantly clear, with the discharge pipes gone, the club was faced with the unfortunate position of not being able to lower the level of the lake, ever, at any time, even if that were its expressed wish.

The water that high at the dam also meant that the over-all size of the lake was increased. The lake backed up well beyond where it had been in the old days, which lead to the widespread misconception, still current today in and around Johnstown, that the club had actually raised the height of the dam from what it had been.

How satisfied Morrell was after the business of the letters was over and done with is not known. For when the sun went down behind Laurel Hill on Monday, August 24, 1885, Daniel J. Morrell was in his grave at Sandy Vale. He had been ill for several years, having suffered what appears to have been an advanced case of arteriosclerosis. He had gone into a steady mental decline not long after he took out his membership in the South Fork fishing club. In 1884 he had given up all his various civic responsibilities and retired from business. After that, it seems, senility closed in hard and fast. He was seen almost never, "lost in mental darkness," as one account put it years later. When he died, "calmly and peacefully" at eight in the morning on Thursday, August 20, 1885, he was sixty-four years old.

On Sunday thousands of mourners queued up along the south side of Main Street to go through the iron gates, up the long front walk, and into the big house to view the remains. For three hours the doors were open and a steady procession filed through.

The next day, from noon until five, the whole town was shut down. The procession that marched out to the cemetery was as fine a display of the town's manhood as anyone had ever seen. Ahead of the hearse tramped men from the Cambria mines and railroads, the

and Sam Helman. The Gramling mill was operated by a small dam which had broken about seven. If a small dam washed out that early, the men reasoned, what might a big dam do later on?

But mostly people were just curious. The Reverend G. W. Brown, pastor of the South Fork United Brethren Church, for example, like nearly everyone else in the neighborhood, had heard rumors of trouble all day and decided finally to go up to see for himself. When he arrived at the dam it was about ten minutes to three. There was no one actually out on the dam then, just at the ends, and the water was pouring over the breast.

Minutes later he saw the first break. He said it was "about large enough to admit the passage of a train of cars."

John Parke said that the break came after the huge "step" had been gouged back into the face so near to the water that the pressure caved in the wall.

Ed Schwartzentruver called the first break "a big notch."

"It run over a short spell," he said, "and then about half of the roadway just fell down over the dam.

"And then it just cut through like a knife."

Colonel Unger said the water worked its way down "little by little, until it got a headway, and when it got cut through, it just went like a flash."

Unger's man Boyer said, "It run over the top until it cut a channel, and then it ran out as fast as it could get out. It went out very fast, but it didn't burst out."

John Parke said, "It is an erroneous opinion that the dam burst. It simply moved away."

According to Ed Schwartzentruver, "The whole dam seemed to push out all at once. No, not a break, just one big push."

The time was ten after three.

IV

Rush of the torrent

-1-

There were men on the hillsides near the dam who had seen what the force of water could accomplish in mining operations, how a narrow sluice could scour and dig with the strength of a hundred men. Actually anyone who had lived in the area long enough to have seen even the spindliest of the local creeks in April had a fair idea of hydraulics at work. But no one who was on hand that afternoon was prepared for what happened when Lake Conemaugh started for South Fork.

"Oh, it seemed to me as if all the destructive elements of the Creator had been turned loose at once in that awful current of water," Colonel Unger said.

When the dam let go, the lake seemed to leap into the valley like a living thing, "roaring like a mighty battle," one eyewitness would say. The water struck the valley treetop high and rushed out through the breach in the dam so fast that, as John Parke noted, "there was a depression of at least ten feet in the surface of the water flowing out, on a line with the inner face of the breast and

"I am going up there to fish the latter part of this month," he said. "I am a member of the South Fork Fishing Club and I believe it is standing there the same as it ever was.

"As for the idea of the dam ever being condemned, it is nonsense. We have been putting in from twenty thousand to fifteen thousand dollars a year at South Fork. We have all been shaking hands with ourselves for some years on being pretty clever businessmen, and we should not be likely to drop that much money in a place that we thought unsafe. No sir, the dam is just as safe as it ever was, and any other reports are simply wild notions."

His own notions, which appeared in the papers on the morning of Sunday, June 2, were so wild, and so very tactless in the face of what was by then known of the suffering at Johnstown, that the only possible excuse for making such a statement must have been that he actually believed every word of it.

And to make matters worse, he was not alone. Young Louis Clarke next told a correspondent for the New York *Herald* that there was great doubt "among the engineers" who had examined the reservoir whether, after all, it had been that particular dam which broke. Just which engineers he was referring to is unclear, but he was interviewed along with another club member, James Reed, who said that in the past he himself had climbed all over the dam, studying it closely, and that "in the absence of any positive statement I will continue to doubt, as do many others familiar with the place, that it really let go." Perhaps, he then suggested, it had been a dam at Lilly which broke.

Reed's comments were of more than passing interest for he was the partner of Philander Knox in the prestigious Pittsburgh law firm of Knox & Reed. If there were to be lawsuits over the disaster, the South Fork Fishing and Hunting Club would almost certainly be represented by Knox & Reed. And already the press was playing up the likelihood that such suits would follow. On June 2 the *World* published a statement attributed to a prominent lawyer practicing in Allegheny County, who preferred to remain anonymous:

"I predict there will be legal suits with possible criminal indictments as a result of this catastrophe. I am told that the South Fork Club has been repeatedly warned of the unsafety of its dam, and it comes from good authority . . ."

On another page the *World* published an interview with Jesse

H. Lippincott of New York City, who was the son of a club member and who had spent several summers at the lake. The dam, he said, was built almost entirely of solid stone, but if it had indeed broken, the death toll would likely run to several thousand, and "Pittsburghers will . . . be deprived of their most popular resort."

Then, on Monday, the 3rd, reporters from Johnstown reached the dam and started sending a series of dispatches from South Fork which removed once and for all any fantasies about the dam still standing; and out of conversations with people in the neighborhood, they began building a history of the structure which did not bode well for the club members.

Feelings were running very strong against the club at South Fork. Monday after dark an angry crowd of men had gone up to the dam looking for any club members who might have been still hanging about. When they failed to find anyone, they broke into several of the cottages. Windows were smashed and a lot of furniture was destroyed. Then, apparently, they had gone over to the Unger farm to look up the Colonel. The reporters later called it a lynch mob and said they were bent on killing Unger. Whether or not it would have come to that, there is no way of knowing, for Unger by that time was on his way to Pittsburgh. There was a good deal of grumbling among the men as they milled about outside Unger's house; threats were shouted; then the men went straggling off through the night, back down the hollow.

The clubmen who had been at the lake had gone off on horseback, heading for Altoona, almost immediately after the dam broke Friday afternoon, though one of them, it seems, stuck around long enough to settle his debts with some of the local people. He had no intention of ever coming back again, he told them, which they in turn repeated for the benefit of the newspapermen. They also emphasized that the Pittsburgh people had not made things any better for themselves by pulling out so rapidly at a time when, as anyone could see, there was such a crying need for able-bodied men in the valley. Had they stayed on to help, it was said, then people might have felt somewhat differently toward them. This way there was only contempt.

But it was when they began describing how the dam had been rebuilt by Ruff and his workers that their real bitterness came through, that all the old, deep-seated resentment against the rich

city men began surfacing. Farmers recalled how they had sold Ruff hay to patch the leaks. A South Fork coal operator who insisted that his name be withheld, but who was almost certainly George Stineman, South Fork's leading citizen, told how, years earlier, he had gone to Johnstown on more than one occasion to complain about the dam's structural weaknesses. Reporters heard that the dam had been "the bogie of the district" and how it had been the custom to frighten disobedient children by telling them that the dam would break. The clubmen were described as rude and imperious in their dealings with the citizens of the valley. Reporters were told of the times neighborhood children had been chased from the grounds; and much was made of the hated fish guards across the spillway. Old feuds, personal grudges, memories of insults long forgotten until then, were trotted out one after the other for the benefit of the press.

Someone even went so far as to claim that several of the Italian workmen employed by the club had been out on the dam at the time it failed and had been swept to their death, thus implying that the Pittsburgh men had heartlessly (or stupidly) ordered them out there while they themselves had hung back on the hillsides.

One local man by the name of Burnett, who conducted a reporter on an inspection of the dam, told the reporter that if people were to hear that he was from Pittsburgh, they might jump to the conclusion that he was connected with the club and pull him from the carriage and beat him to death. "That is the feeling that predominates here," Burnett said, "and, we all believe, justly."

The plain fact was that no one who was interviewed had anything good to say about the South Fork Fishing and Hunting Club, its members, or its dam. And when a coroner's jury from Greensburg, in Westmoreland County, showed up soon after the reporters, the local people willingly repeated the same things all over again.

The jurymen had come to investigate the cause of death of the 121 bodies that had been recovered at Nineveh, which was just across the line in Westmoreland County. They poked about the ruins of the dam, talked to people, made notes, and went home. The formal investigation, with witnesses testifying under oath, was to be held on Wednesday, the 5th.

In the meantime, Mr. H. W. Brinkerhoff of ***Engineering and Building Record***, a professional journal published in New York,

arrived in South Fork to take a look at the dam and was soon joined by A. M. Wellington and F. B. Burt, editors of *Engineering News*. Most of the reporters remained cautious about passing judgment on the dam, waiting to see what the experts had to say. But on June 5 the headline on the front page of the New York *Sun* read:

CAUSE OF THE CALAMITY

The Pittsburgh Fishing Club
Chiefly Responsible

The Waste Gates Closed
When the Club Took
Possession

The indictment which followed, based on a *Sun* reporter's "personal investigation," could not have been much more bluntly worded.

> . . . There was no massive masonry, nor any tremendous exhibition of engineering skill in designing the structure or putting it up. There was no masonry at all in fact, nor any engineering worthy of the name. The dam was simply a gigantic heap of earth dumped across the course of a mountain stream between two low hills. . . .

In Johnstown on the same day, General Hastings told a *World* correspondent that in his view, "It was a piece of carelessness, I might say criminal negligence." In Greensburg the Westmoreland coroner's jury began listening to one witness after another testify to the shoddy way the dam had been rebuilt and the fear it had engendered, though two key witnesses had apparently had second thoughts about speaking their minds quite so publicly and refused to appear until forced to do so by the sheriff.

Two days later, on the 7th, a verdict was issued: ". . . death by violence due to the flood caused by the breaking of the dam of the South Fork Reservoir . . ." It seemed a comparatively mild statement, considering the talk there had been and coming as it did on the same day as Hastings' pronouncement. But on the preceding day, another cornoner's inquest, this one conducted by Cambria

County, had rendered a decision that spelled out the cause of the disaster, and fixed the blame, in no uncertain terms.

The Cambria jurors had also visited the dam and listened to dozens of witnesses. But their inquest was held to determine the death of just one flood victim, a Mrs. Ellen Hite. Their verdict was "death by drowning" and that the drowning was "caused by the breaking of the South Fork dam."

But then the following statement was added:

"We further find, from the testimony and what we saw on the ground that there was not sufficient water weir, nor was the dam constructed sufficiently strong nor of the proper material to withstand the overflow; and hence we find the owners of said dam were culpable in not making it as secure as it should have been, especially in view of the fact that a population of many thousands were in the valley below; and we hold that the owners are responsible for the fearful loss of life and property resulting from the breaking of the dam."

Now the story broke wide open. "THE CLUB IS GUILTY" ran the *World*'s headline on June 7. "Neglect Caused the Break . . . Shall the Officers of the Fishing Club Answer for the Terrible Results."

The Cincinnati *Enquirer* said that in Johnstown, as more facts became known, the excitement was reaching a "fever heat" and that "it would not do for any of the club members to visit the Conemaugh Valley just now." The Chicago *Herald* said there was "no question whatever" as to the fact that criminal negligence was involved.

Although it would be another week before the engineering journals would publish their reports on the dam, the gist of their editors' conclusions had by now leaked to the press. On Sunday, the 9th, *The New York Times* headline ran:

An Engineering Crime
The Dam of Inferior Construction
According to the Experts

Actually, the engineering journals never worded it quite that way. The full report which appeared in the issue of *Engineering News* dated June 15 said that the original dam had been "thor-

oughly well built," but that contrary to a number of previously published descriptions, it had not been constructed with a solid masonry core. (From this some newspapers would conclude that the "death-dealer" was nothing but a "mud-pile.") The repairs made by Benjamin Ruff, however, had been carried out "with slight care," according to the report. Most important of all, there had been "no careful ramming in watered layers, as in the first dam." But Ruff's work was not the real issue, according to the editors. "Negligence in the mere execution of the earthwork, however, if it existed, is of minor importance, since there is no doubt that it was not a primary cause of the disaster; at worst, it merely aggravated it."

The primary causes, it was then stated, were the lowering of the crest, the central sag in the crest, the fact that there were no outlet pipes at the base, and the obstruction of the spillway. The details of these matters were carefully described, and it was speculated that the disaster might have been averted that Friday afternoon if the bridge over the spillway and the fish guards had been cut away in time, or if some "man of great resolution, self-confidence, and self-sacrifice" had (as John Parke had contemplated) cut the dam at one end, where the original and more firmly built surface would have held up better against the enormous force of erosion.

But the point the editors of the report seemed most determined to hammer home was that there was no truth to any claims being made that the dam had been rebuilt by qualified engineers.

"In fact, our information is positive, direct, and unimpeachable that at *no time during the process of rebuilding the dam was* ANY ENGINEER WHATEVER, young or old, good or bad, known or unknown, engaged or consulted as to the work,—a fact which will be hailed by engineers everywhere with great satisfaction, as relieving them as a body from a heavy burden of suspicion and reproach."

Moreover, contrary to some statements made in Pittsburgh since the disaster, they had found no evidence that the dam had ever been "inspected" periodically, occasionally, or even once, by anyone "who, by any stretch of charity, could be regarded as an expert."

In other words, the job had been botched by amateurs. That

they had been very rich and powerful amateurs was not considered relevant by the engineering journals, but so far as the newspapers were concerned that was to be the very heart of the matter. It was great wealth which now stood condemned, not technology.

The club had been condemned by the coroners' juries, General Hastings, *and* by the engineering experts. The newspapers made no effort to investigate the dam themselves, and only one or two made any effort to present the facts about the dam or to explain even in passing why it had failed. Nor did the editorial writers make an effort to remain even moderately objective until more information became available. The club was guilty, criminally guilty several papers were saying, and that was that. Unlike the Hungarian stories, this one, it seemed, would hold up. It was based on about as solid information as could be hoped for, and in terms of its emotional content, it was perhaps even stronger. Now across the country there arose a great howl of righteous indignation.

For everyone who had been asking how such a calamity could possibly happen in the United States of America, there now appeared to be an answer, and it struck at the core of something which had been eating at people for some time, something most of them had as yet no name for, but something deeply disturbing.

For despite the progress being made everywhere, despite the growing prosperity and the prospect of an even more abundant future, there were in 1889 strong feelings that perhaps not all was right with the Republic. And if the poor Hungarians of Johnstown were signs of a time to come when a "hunky" could get a job quicker than a "real American," then the gentlemen of the South Fork Fishing and Hunting Club were signs of something else that was perhaps even worse. Was it not the likes of them that were bringing in the hunkies, buying legislatures, cutting wages, and getting a great deal richer than was right or good for any mortal man in a free, democratic country? Old-timers said that with every gain they made people were losing something. If that was so, people were beginning to think a little more about just what it was they might be losing, and to whom. And the more they thought about it, and especially the workingmen, the less they liked it.

It would be another three years before this kind of feeling would burst out in the terrible violence of the Homestead steel strike in Pittsburgh and Henry Clay Frick would nearly die of a

bullet in his neck. And it would be another several years after that before public indignation over the power of the trusts, the giant corporations, and the men who ran them would erupt into public outrage. But the feeling was there in 1889, and it ran a great deal deeper than most people would have supposed. Certainly the language used by the press reflected a level of scorn and bitterness that would have been unthinkable a decade earlier.

The South Fork Fishing and Hunting Club was now described as "the most exclusive resort in America," and its members were referred to as millionaries, aristocrats, or nabobs. According to the Cincinnati *Enquirer* not even vast wealth was enough to gain admission, unless it was hereditary. "Millionaries who did not satisfy every member of the club might cry in vain for admission," the *Enquirer* wrote. "No amount of money could secure permission to stop overnight at the club's hotel . . ." The paper said that no one could visit the club without a permit, and called it "holy ground consecrated to pleasure by capital," but added that no one would want to go there now, "except to gaze a moment at *the Desolate Monument to the Selfishness of Man* . . ." J. J. McLaurin, the Harrisburg newspaperman, who was otherwise relatively reliable in his reporting on the disaster, wrote: "The club was excessively aristocratic, and so exclusive that Tuxedo itself might pronounce the Lorillard ideal a failure. The wealthy members never deigned to recognize the existence of the common clay of the neighborhood, farther than to warn intruders to keep off the premises."

Like dozens of others, McLaurin was also infuriated over the idea that the lake had served as a summer resort. He wrote that "50,000 lives in Pennsylvania were jeopardized for eight years that a club of rich pleasure-seekers might fish and sail and revel in luxurious ease during the heated term."

For an age which by no means looked upon pleasure as something to be expected in life, let alone life's chief objective, the very fact that the lake had been put there solely for *pleasure* seemed almost more than anyone could take; and in several editorials the writers seemed to imply that if the lake had served some other purpose, some *practical* purpose, then the tragedy would not have been quite so distressing.

"It is an aggravation of the calamity to reflect that the reservoir which gave way served no useful purpose, but merely minis-

The site of the Chagres dam had been moved from Bohio downstream to Gatun, to within four miles of Limon Bay. What had been Lake Bohio in the earlier plan now became a much larger Gatun Lake. The span of the water bridge had been extended nine miles.

The elevation of the lake was to be eighty-five feet. At Gatun there would be a single flight of three locks built into the eastern end of the dam. A ship entering the locks would be lifted to the level of the lake, then proceed twenty-three miles across the lake, south to Culebra Cut, which, like the neck of a bottle, extended for nine miles through the divide and was capped by another small dam and one lock at Pedro Miguel. There the ship would be lowered thirty-one feet to a small terminal lake, another body of fresh water, this one being contained by a dam at La Boca, beside Sosa Hill, at the edge of the Pacific. Descending through two more locks, the ship would return to sea level and thus complete the ocean-to-ocean transit.

The model for the plan, its proponents stressed, was the Soo Canal, which for fifty years had been the gateway between Lake Superior and Lake Huron. There was no more heavily traveled canal in the world. By contrast to the 105-mile-long sea-level passage at Suez, the Soo was all of a mile and half from end to end. Yet the annual tonnage through the locks—44,000,000 tons in 1905—was more than three times that of the Suez Canal, even though the Soo was closed by ice during the winter. In season, huge Great Lakes ore boats moved through with an efficiency and safety that belied all the customary arguments against lock canals. No vessel had ever been seriously injured in the locks of the Soo, not in fifty years of constant traffic. "Danger to ships in a canal is not at the locks, where they are moving slowly and under control, but in the excavated channels . . . through which they pass at speed, and where if the width is insufficient, groundings are likely to happen." The experience gained at the Soo was not only applicable to navigation at Panama, but of more value than any or all experience related to any other canal, according to the minority report, most of which was written by Alfred Noble, who in his earlier years had helped build the so-called Weitzel Lock on the Soo and who presently, at age sixty-one, was one of the two or three leading engineers in the country. (As chief engineer of the East River division of the Pennsylvania Railroad from 1902 to 1909, Noble was responsible for tunnel construction under the river and for the foundations of Pennsylvania Station in New York City.)

Yet in its essentials this latest high-level lake plan for Panama was no different from that proposed by Godin de Lépinay in Paris twenty-

seven years before. Gatun, it will be recalled, was the site specified by de Lépinay for the Chagres dam.

There had been others in the interval who had also seen Gatun as the most suitable place to check the river. Two interested Americans, C. D. Ward and Ashbel Welch, had each presented papers on the subject before the American Society of Civil Engineers. But because the breadth of the valley was far greater at Gatun than at Bohio, a much larger dam would have to be built at Gatun, thus making it an even more controversial project than the one at Bohio had been. This "controlling feature" in the new proposal was to be a mountain of earth nearly a mile and a half long (7,700 feet) and more than 100 feet high. And while earth dams of nearly the same size had been built with success elsewhere, this would be the highest on record and the Gatun site appeared to offer little if any bedrock upon which to found such a structure.

Stevens was chief among those who now backed the Gatun plan. Recalled to Washington to give his views, he met with Shonts, Taft, and Roosevelt and made a memorable appearance before the Senate canal committee. Stevens, however, was not the "architect" of the lock plan, as later claimed by some of his more ardent admirers. As recently as October, when appearing before the advisory board in Colón, he had in fact quite stubbornly refused to endorse any plan for the canal, saying he was too new to the work. The present lock plan was the work of Alfred Noble and Joseph Ripley, and was based largely on their experience on the Soo. Stevens, whose background was in railroad construction only, had no knowledge of lock construction or hydraulics. The real "architect" of the present plan, if such is an appropriate designation, remained Godin de Lépinay.

Still, Stevens had experienced a revelation since October. He had seen the effect of the rains; he had seen the Chagres in flood. In conversations with Maltby and others who had served under Wallace, he had found none who favored a sea-level canal. Stevens had once believed like others that a sea-level canal "meant simply digging a little more dirt." Now he saw that the issue was one of the most momentous consequence and he could not have been more partisan. To his mind any sea-level plan for Panama was "an entirely untenable proposition," "an impracticable futility." The sea-level passage advocated by the majority of the board was to be only 150 feet wide for nearly half its length—"a narrow, tortuous ditch." He foresaw endless landslides, a precarious transit under the best of conditions. Whenever two ships passed in so narrow a channel, one would have to make fast to mooring

below ground may have been the cause of several of the more disastrous slides.

All technical problems at Panama were small problems compared to the slides in the Cut. The building of the great dam at Gatun, for so long the most worrisome part of the plan, turned out to be one of the least difficult tasks of all. A tremendous man-made embankment simply grew year by year at Gatun, extending a mile and a half across the river valley, a ridge of earth that was to be fifteen times as wide at its base as it was high. At the eastern end were the beginnings of the Gatun Locks; in the center were the beginnings of what was to be the dam's giant concrete spillway. Two big outer walls of "dry" spoil were built first as a base for the embankment. These toes, as they were called, were nearly half a mile apart—the river, meantime, having been turned into an old diversion channel built by the French—and into the space between them was pumped hydraulic, or "wet," fill, a solution of blue clay, which when dry would create a core almost as impervious as concrete. There was no lack of controversy over the project as time went on (much of it stirred up by Philippe Bunau-Varilla, who was convinced that Goethals did not know what he was doing), and once, on November 20, 1908, a section about two hundred feet long slipped sidewise and sank nearly twenty feet at the point where the dam crossed the old French canal. In the face of a storm of criticism and alarm in the newspapers, Goethals insisted that the situation was not serious and as it turned out he was perfectly correct. The damage was repaired; the work went on.

The slides, however, were a wholly different matter. The first occurred early in the fall of 1907, or just as Goethals was beginning to feel he had things under control.

The Cucaracha slide, located on the east bank of the Cut just south of Gold Hill, was the slide that had given the French such grief. On the night of October 4, 1907, after days of unusually heavy rain, Cucaracha "started afresh." Without warning, an avalanche of mud and rock plunged into the bottom of the Cut, destroying two steam shovels, obliterating all track in its path. And for days afterward that same part of the slope, about fifty acres in area, kept moving down and down, slipping anywhere from ten to fifteen feet a day. "It was, in fact, a tropical glacier—of mud instead of ice," Major Gaillard noted in an article for *Scientific American*, "and stakes aligned on its moving surface and checked every 24 hours by triangulation, showed a movement in every respect similar to stakes on moving glaciers in Alaska upon which the writer has made observations in 1896." After ten days, when the slipping stopped, 500,000 cubic yards of mud had been dumped into the canal.

In 1910 Cucaracha let go twice again, burying shovels, track, locomotives, flatcars, and compressed-air lines. The entire south end of the Cut was bottled up for months. Within a year Gaillard reported that the worst of the slides were over, but in fact they were still to come. From 1911 on, as the Cut grew very much deeper, the slides occurred season after season and grew increasingly worse. "No one could say when the sun went down at night what the condition of the Cut would be when the sun arose the next morning," Bishop wrote. "The work of months and years might be blotted out by an avalanche of earth or the toppling over of a small mountain of rock." There were slides at Las Cascadas, La Pita, Empire, Lirio, East Culebra—twenty-two slides all together. Cucaracha was almost never still. It took three months to dig out the rock and mud dumped into the Cut by slides in 1911. In 1912 more than a third of the year, four and a half months, was spent removing slides. On one day more than a hundred trains would roll out of the Cut; the next day there would be none, because a monstrous slide had occurred.

Steam shovels were buried so deep in mud that only the tips of their cranes were left protruding. Hundreds of miles of track disappeared or were twisted into crazy roller-coaster patterns. In one bizarre instance a shovel and track were picked up by a landslide and were deposited unharmed halfway across the floor of the Cut.

On some of the terraced slopes the ground crept ever so slowly, barely inches a day, which was never enough to do any serious damage, but for two years gangs of men had to be kept constantly at hand, day after day, moving the track back to where it belonged.

At another place a slow but relentless slide kept perfect pace with the steam shovel working at its base. The shovel never had to move; as much as it dug, the slide replenished.

For the engineers the problem was not merely the size of the slides. They were also confronted with a type nobody had anticipated. Those slides that had beset the French, like the comparative few experienced by Wallace and Stevens, were normal, or gravity, slides—Cucaracha being the largest and most destructive example. As explained earlier, they nearly always occurred in the rainy season, when a top layer of soft, porous material slid from the sloping plane of underlying rock, "like snow off a roof," as one American said. But the new variety, and much the worst, were what geologists classified as structural break and

deformation slides. They were due not to sliding mud, but to unstable rock formations, the height of the slopes, and, in part, to the effects of heavy blasting. As the Cut deepened, the underlying rock formations of the slopes lost their lateral support and were unable to withstand the enormous weight from above. It was as if the flying buttresses had been removed from the wall of a Gothic cathedral: the exposed wall of the Cut simply buckled outward under its own load and fell. Rains and saturation actually had little to do with such slides. In fact, some of the most horrendous happened during the dry season.

The first signs of trouble were huge cracks in the ground running along the rim of the Cut, anywhere from a few feet to a hundred yards back from the edge. The next stage might come weeks or months later, or it might take years. A settling or outward tilt of big blocks, whole sections of the slope, would commence. Then the whole slope would give way, sometimes in an hour or two, sometimes over several days.

The worst of such slides occurred in front of the town of Culebra, on the west bank of the Cut, where huge cracks in the ground began appearing in 1911. By the summer of 1912, "the large and annoying Cucaracha" had put an additional 3,000,000 cubic yards in the path of the canal, but the slide on the west bank at Culebra had deposited more than twice that amount. Thirty buildings in the town of Culebra had to be moved back from the brow of the Cut.

"Now suddenly the people living nearest the Cut were being compelled to move," wrote Rose van Hardeveld, the young wife and mother from Wyoming. "The bank was sliding into the Cut! One after another, the houses were being vacated.

"The neighbors three doors east of us were warned time and again that it was not safe to stay. . . . One morning they awakened to find their back steps well on the way to the bottom of the Cut."

Before long some seventy-five acres of the town broke away and fully half of all the buildings had to be dismantled and removed to save them from being carried over the edge. Ultimately these breaks, all occurring in the dry season, dumped 10,000,000 cubic yards into the Cut, while on the opposite side another 7,000,000 cubic yards fell away, with the result that the top width of the Cut at that point was increased by a quarter of a mile.

The slides "seem to be maneuvered by the hand of some great marshal and sent forth to the fray in every way calculated to put the canal engineers to discomfiture," declared the *National Geographic Magazine*. "Now they are quiescent, attempting to lull the engineers into a

false security . . . now they come in the dead of night, spreading chaos and disrupting everything in whatever direction they move . . ." To many of the workers it seemed the task would go on forever. "I personally would say to my fellow men," recalled one Barbadian, "that . . . my children would come and have children, and their children would come and do the same, before you would see water in the Cut, and most all of us agree on the same."

Often wisps of smoke would trail from the moving embankments. Once cracks in the surface below Culebra issued boiling water. When Gaillard arrived to investigate the matter, he took a Manila envelope from his pocket and held it over one of the vents in the earth. In seconds the paper was reduced to ashes. The explanation, according to the geologist who was summoned, was "oxidation of pyrite," but the terrified workers were convinced that they were cutting into the side of a volcano.

The most uncanny of all effects, however, was the rising of the floor of the Cut. Not merely would the walls of the canal come crashing down, but the bottom would rise ten, fifteen, even thirty feet in the air, often quite dramatically. Gaillard on one occasion grew concerned as a steam shovel appeared to be sinking before his eyes, but looking again he realized it was not that the shovel was descending, but that the ground where he stood was steadily rising—about six feet in five minutes, "and so smoothly and with so little jar as to make the movement scarcely appreciable."

This phenomenon, diabolical as it seemed, had a simple explanation. It was caused by the weight of the slipping walls of the Cut acting upon the comparatively soft strata of the exposed canal floor. The effect was exactly that of a hand pressed into a pan of soft dough—the hand being the downward pressure of the slides, the rising dough at the side of the hand being the bottom of the canal.

The slides attracted worldwide attention and inspired all kinds of suggestions as to how the problem might be solved, very few of which were practical. The most popular remedy was to plaster the sides of the Cut with concrete, and this was actually tried in one particularly troublesome area, but without success. The concrete crumpled and fell along with everything else as soon as the slide resumed its downward progress.

To check the deformation slides considerable excavation was also done along the uppermost portions of the slopes in an effort to decrease the pressure on the underlying strata. But by and large there was still only one way to cope with the problem and that was the same

as it had been since the time of the French—to work for an angle of repose, to keep cutting back at the slopes, to keep removing whatever came down, until the slides stopped. And no one honestly knew how long that might take. By late 1912 at Cucaracha and at Culebra, the chief trouble spots, the angle of inclination was about one on five (one foot vertical to five horizontal). Still the ground kept moving.

Fifteen thousand tourists came to watch the show in 1911 and in 1912 there were nearly twenty thousand. "You are now overlooking the world-famous Culebra Cut," exclaimed the tour guides at the start of their standard spiel. There was more tonnage per mile moving on the tracks below, the visitors were informed, than on any railroad in the world. But meanwhile a big clubhouse at the town of Culebra was being dismantled and removed ("in order to lighten the weight upon the west bank of the canal at this point"), and on January 19 Cucaracha broke loose once again. It was one of the worst slides on record. It spilled the whole way across the Cut and up the other side. All traffic was blocked at that end; for the sixth or seventh time, the slide had wiped out months of work.

Gaillard was practically in shock, according to one account, and Goethals was hurriedly called to the scene. "What are we to do now?" Gaillard asked. Goethals lit a cigarette. "Hell," he said, "dig it out again."

20
Life and Times

For a while we tramped on in silence, till Umbopa, who was marching in front, broke into a Zulu chant about how brave men, tired of life and the tameness of things, started off into a great wilderness to find new things or die, and how, lo, and behold! when they had got far into the wilderness, they found it was not a wilderness at all, but a beautiful place full of young wives and fat cattle.

—H. Rider Haggard
King Solomon's Mines

And this on the slope of the death-dealing Chagres!

—Charles Francis Adams

I

There were six passenger trains daily on the Panama Railroad, three in each direction, and since the railroad was still the one way to get back and forth, the trains were always crowded and the crowds were always interesting to look at. Especially in the cool of the evening every little station platform would be thronged with people, and to anyone newly arrived on the Isthmus it was astonishing to see American women and children in such numbers and all looking so very healthy, clean, and perfectly at home. They were not merely surviving in such alien—and once deadly—soil, but plainly thriving, and this to many visitors was as impressive, as great a source of patriotic pride, as anything to be seen.

One grew tired of hearing of "the largest dam, the highest locks, the greatest artificial lake, the deepest cut," wrote a correspondent for *The*

UW-Allen N2 Marxism in Modern France
- George Lichtheim (Colia U Press, '66)

bring this apparently solid structure to the ground. But even before the great debacle, there was the awkward phenomenon of revolutionary Syndicalism to remind all concerned that the fusion of democratic reformism with Marxism, or quasi-Marxism, had not quite solved the problem of unifying the French workers movement.

Syndicalism

Syndicalism is too complex a subject for a brief sketch, the more so since it involves a consideration of the issues dividing "authoritarian" and "libertarian" collectivists (in later terminology: Socialists and Anarchists) from the 1870s onward.[24] But if a formula is permissible, one may say that the French syndicalist movement between 1890 and 1914 saw itself, and was seen by others, as the dialectical union of Anarchism and Marxism. That at any rate was how Sorel envisaged it, and Sorel is the only important theorist the movement has produced.[25] Having won his spurs in the 1890s as an interpreter of Marx, he could later claim to have brought about a synthesis of Proudhonism and Marxism, and indeed his first coherent attempt to state the new doctrine occurred at a time when he still regarded himself as a follower of Marx.[26]

What Sorel got from Marx—at any rate in 1898, when he had not yet begun his descent into myth-fabrication and the advocacy of violence for its own sake—was the notion that socialism was the

[24] Maitron, pp. 34 ff. This gives the Anarchist version of the story, but in a scholarly fashion, and with due emphasis on the role of Proudhon in fathering the whole tradition, at any rate so far as France is concerned.

[25] Though its real animator was Fernand Pelloutier. See Maitron, pp. 253 ff.

[26] Georges Sorel, "Avenir socialiste des syndicats," in *Matériaux d'une théorie du prolétariat* (Paris, 1919), pp. 55 ff. The essay was first published in March-April 1898 in the revue *Humanité nouvelle* and later reprinted as a pamphlet. The new Preface of 1905—composed while Sorel was already working on the draft of his *Réflexions sur la violence*—differs considerably in tone from the original text. In particular it contains a savage assault on Jaurès, who is accused of having betrayed the syndicalist utopia for the sake of gaining the friendship of wealthy bourgeois supporters, notably the "Dreyfusards de la Bourse." The tone of this Preface is a distant prefiguration of Mussolini's subsequent invectives against liberalism and socialism, and it explains how Italian Fascists in the 1920s could see themselves as disciples of Sorel. More immediately, it met a current coming from the Maurrasist Right in France itself, where the notion of fusing nationalism with socialism was beginning to take shape in some minds. A degree of antisemitism was part of the mixture.

conscious expression of the proletarian class movement. From this it appeared to follow that the mechanism of the coming social transformation was to be found solely in the class struggle, and more particularly in the strike movements led by the *syndicats:* movements destined to culminate in the revolutionary General Strike which would sound the knell of bourgeois society. The trouble, as Sorel saw it, was that the official Socialists—mostly intellectuals of bourgeois origin—would have none of this: their socialism, which they decked out with citations from Marx and Engels, was political and parliamentary, hence reformist. This perversion, in his opinion, was rooted in their class outlook, since they were in fact bourgeois intellectuals in search of a proletarian clientele. In this way Sorel's critique rejoined that of Proudhon, though by a circumlocution made necessary by the growing prestige of Marx and the impossibility of ignoring him. It is amusing to find that in 1898 Kautsky was Sorel's particular bête noire because of his readiness to welcome intellectuals into the labor movement,[27] whereas Lenin a few years later cited Kautsky by way of reinforcing his own thesis that the workers movement, left to itself, could not develop a proper socialist consciousness. Yet in 1918 Sorel was to hail the Bolshevik regime because it had, as he thought, destroyed the intellectuals along with bourgeois democracy: the form of government best suited to their interest.[28]

If the question be raised why the nascent French Communist party nonetheless proved able in the 1920s to employ the syndicalist platform as a launching pad for its own journey into political space, the answer must be that revolutionary syndicalism as such had suffered shipwreck in 1914: not so much because most of its leaders adopted a patriotic position, but because the myth of a revolutionary proletariat was no longer tenable after the *Union Sacrée* of August 1914 had shown that the overwhelming bulk of the working class responded to national sentiments. Syndicalism had indeed always rested upon a

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[27] Sorel, *Matériaux d'une théorie*, pp. 93 ff.

[28] *Ibid.*, p. 53 (post-scriptum of 1918 to the unpublished Preface of July 1914): "La sanglante leçon de choses qui se produira en Russie fera sentir à tous les ouvriers qu'il y a une contradiction entre la démocratie et la mission du prolétariat; l'idée de constituer un gouvernement de producteurs ne périra pas; le cri 'Mort aux Intellectuels,' si souvent reproché aux *bolsheviks,* finira peut-être par s'imposer aux travailleurs du monde entier. Il faut être aveugle pour ne pas voir que la révolution russe est l'aurore d'une ère nouvelle."

minority of active *militants* (craftsmen for the most part rather than ordinary factory workers); but the elite possessed a self-confidence fed on the belief that in a crisis the masses would follow it. This vision was shattered at the outbreak of war, when it became overwhelmingly evident that the revolutionary credo was merely that of a tiny minority.[29]

If Sorel's writings between 1898 and 1918 are examined in this light, they seem to point in several directions at once, so that it has been possible to claim him for Bolshevism and Fascism, as well as for the Syndicalist tradition. The paradox is lessened when one reflects that these movements shared a common hostility to liberal democracy as the political form of an apparently decrepit and corrupt (at any rate in France and Italy: the two countries with which Sorel was personally concerned) bourgeois society. But there was more to it: in his confused and confusing fashion, Sorel had stumbled upon a genuine problem. Setting aside his venomous polemics against Jaurès, and against the reformist intellectuals in general, the core of his argument had some bearing upon what was to become the central issue of the labor movement in the twentieth century: its relation to the state. Immediately this took the form of disputations over the nature of political power and the proper means of capturing (or liquidating) it. But in the long run something else was involved: given that socialism

[29] Kriegel, *Aux origines*, I, 53 ff. See Collinet, *La tragédie du marxisme*, p. 64: "L'ouvrier actif de 1906, qu'il fût socialiste et à plus forte raison anarcho-syndicaliste, était un militant jaloux de son indépendence intellectuelle. . . . Au contraire, la discipline de la grande industrie moderne pousse le manoeuvre spécialisé dans les rangs d'un parti hierarchisé et totalitaire." The masses were, however, already indifferent to anarcho-syndicalism in 1914, when the test came, and this depressing realization sounded the knell of the whole Proudhonian-Sorelian tradition. Many of its adherents then bowed to the evidence and made peace with democracy—which under the circumstances meant renouncing the idea of a revolutionary general strike. This débacle later provided a *leitmotiv* of Communist writing, even among the anti-Stalinist sects that split off from the main stem. For a typical assessment, see the obituary article on the veteran Alfred Rosmer in the July-September 1964 number of the Bordigist, i.e., left-wing Communist Paris quarterly, *Programme Communiste*. "Le syndicalisme révolutionnaire est bel et bien mort en 1914, mais non pas toutes les conceptions qu'il a inspirées et qui nient la dictature du prolétariat. . . ." p. 62. For the followers of Lenin—down to the present-day Trotskyists and the Italian pupils of Antonio Gramsci—the prime lesson of 1914 was and is that "the class" cannot be relied upon to follow the true revolutionary line unless it is guided by "the party."

aimed at the establishment of a planned and centralized economy, who was to manage it, and what was to be the role of the workers? Was the functional separation of physical and mental toil to be perpetuated? In that case, would not the intellectuals constitute themselves as a new ruling class? These issues were already inherent in the original dispute between Marx and Bakunin (most of whose followers had been erstwhile Proudhonists). But they took practical shape only in the new century, and this for the best of reasons: large-scale industry and modern scientific technology underwent a drastic change *after* the Marxian version of socialism had been more or less formulated. Marx had indeed anticipated a good many features of the fully developed industrial society, but—adamant in his refusal to "write recipes for the cookshops of the future"—he had not provided his followers with a blueprint of the new order. His magnum opus was a critique of capitalism, not a sociology of industrialism. He left it to the future to disentangle these aspects of social reality. This attitude was scientifically sound, but it made things awkward for his disciples, unless, like Kautsky and the German-Austrian Marxists generally, they were content to play variations on a single theme: the coming crisis of capitalism. If they tried to look beyond this to the actual management of a socialist economy, they were bound to enter terra incognita.

Hence the disturbing influence of Syndicalism which—in the actual practice of the movement rather than in the writings of Sorel or Lagardelle—transcended the horizon of parliamentary reform. But Sorel spoiled his case by muddling up two quite distinct matters: the role of Socialist politicians in helping to keep bourgeois democracy going, and the hypothetical function of a new managerial caste drawn from the ranks of the middle class. Now and then he caught a glimpse of the future.[30] More often he confused matters by making it appear that the hungry office seekers, whose opportunism he stigmatized, were the forerunners of a new exploiting class. When he blamed them for

[30] See his perceptive comment, in *Matériaux d'une theorie*, p. 90n, on the Saint-Simonian tendencies current among Socialist *universitaires* like Jaurès, who in 1897 had urged the employment of impecunious young men of talent as government functionaries concerned with industry. Characteristically, Sorel coupled this with some nonsense of his own about the parasitical growth of science: this in a country which was suffering from backwardness and neglect precisely in this field!

trying to infiltrate the workers movement, he was echoing Proudhon.[31] When he commented on the functional division of labor in modern industry between (intellectual) overseers and (manual) executants, he was anticipating the key issue of the future.[32] The distinction never became clear to him; in other words, he never grasped that the future technocracy, whose coming he foresaw and detested, was not in the least dependent on the lawyers and journalists who got elected to the Chamber of Deputies on the Socialist ticket. It was typical of his muddled perception that Bolshevism appeared to him as the triumph of the workers over the hated intellectuals: had not Lenin dissolved the Constituent Assembly and instituted the rule of workers councils? In fairness to Sorel, such sentiments were widely shared at the time among the remnants of revolutionary Syndicalism. It took years of growing disillusionment to dispel the notion that the October Revolution had given birth to a workers state.

The Sorel of 1898 stood closest to Marx in his insistence that only an autonomous labor movement could bring about that "emancipation of the working class" in which both men believed. He differed from Marx in exalting the trade union movement, the *syndicats,* above the political party: on the grounds that the political wing of the movement was hopelessly corrupted by the intelligentsia, and compromised by its involvement with bourgeois parliamentarianism. The time was to come when Communism would draw the appropriate moral: to remain incorruptible, the party too had to be proletarian, or at any rate led by true sons of the working class. Moreover, its center of gravity must lie outside parliament. Sorel would have approved these conclusions, though with an important reservation: he would have scented in the Communist authoritarianism the germ of a new hierarchy subordinating the toilers once more to a directing stratum. Moreover, he would have been right, though the new bureaucratic masters differed from the old ones (e.g., in rejecting individual liberty and the rule of

[31] "Ces Intellectuels, mal payés, mécontents ou peu occupés, on eu l'idée vraiment géniale d'imposer l'emploi du terme impropre de *prolétariat intellectuel:* ils peuvent ainsi facilement se faufiler dans les rangs du prolétariat industriel. . . . La véritable vocation des Intellectuels est l'exploitation de la politique." *Ibid.,* pp. 97-98.

[32] "La hierarchie contemporaine a pour base principale la division des travailleurs en intellectuels et en manuels." *Ibid.,* p. 89.

law). In the face of this phenomenon, though, it might have been difficult for him to retain his optimistic assurance that Syndicalism pointed toward a future when the working class would at last stand on its own feet.[33]

If the reformist version of Marxism emphasized the lessening of class tensions and the unique importance of liberal democracy (at any rate for Western Europe), the Sorelian critique may be said to have fastened upon those aspects of the Marxian synthesis which obscured the latent rift between the autonomous workers movement and the future directing stratum of the socialist order. Marx had envisaged a transformation stemming from the working class itself, and in this respect every Syndicalist could feel himself his heir. The democratic and libertarian character of Marx's doctrine was not really in question, for all the Anarchist complaints against him. Tensions and uncertainties arose rather from the growth of doubt concerning the ability of the working class to bring forth new institutions which could take the place of the old political and social hierarchies. The Sorelian "wager" on the General Strike was already a piece of romanticism, and on the eve of 1914 it had come close to being an act of desperation. On the other wing of the movement, reformist labor bureaucrats like Jouhaux after 1914 came increasingly to expect social emancipation from the influence of the public authorities, thereby establishing a link between the parliamentary Socialists and the union movement. The war itself destroyed revolutionary Syndicalism by showing up its pretensions. The disappointment caused by the "degeneration" of the Soviet regime was the finishing touch, and helped to drive some former Syndicalists into the Fascist camp.

These issues were inherent in Sorel's critique of Marx, and this must be the excuse for giving them a brief and inadequate airing. It can never be stressed sufficiently that for Sorel the class struggle was "the alpha and omega of socialism," and the emphasis upon it "that which is really true in Marxism."[34] What separated him from the

[33] *Ibid.,* pp. 131-33.

[34] *Ibid.,* p. 67, where he also insists that "le syndicat est l'instrument de la guerre sociale." This follows for him from the general notion that "la lutte de classe . . . n'est pas un concept sociologique . . . mais l'aspect idéologique d'une guerre sociale poursuivie par le prolétariat contre l'ensemble des chefs d'industrie."

orthodox Marxists was their seeming reluctance to draw the appropriate conclusions from their own premises. As for the Jaurèsian synthesis of reformism and republicanism (not to mention its technocratic overtones) he abhorred it all the more because its leading representatives had entered into a parliamentary alliance with the bourgeois Radicals. This came natural to them, since as former pupils of the *École normale* they were basically committed to what by 1900 had become the official ideology of the Third Republic. Behind Jaurès stood Durkheim and the whole corps of academic sociologists and quasi-official moralists who were busy inculcating the new *laiciste* ideology of Science and Progress. In certain respects reformist socialism around 1900 appeared as a variant of bourgeois progressivism. On this point at least Sorel was at one with the Marxists, who from the start had distrusted Jaurès precisely because he was a product of the *École normale*.[35]

Integral Socialism

At our present distance from the scene it is plain enough that the Jaurèsian version of socialism—like its Fabian counterpart in Britain—had an unconscious social function. It satisfied the needs of the new professional and managerial class, or at any rate of its intellectual elite which was veering towards socialism. In a fully developed industrial society the importance of this stratum was bound to grow, until in the end it would lay claim to leadership of society (and of the socialist movement). In the 1890s the issue still appeared in ideological terms, as a quarrel over the proper interpretation of socialist doctrine. Instinctively, both Engels and Sorel scented danger, but Engels' French disciples—with Lafargue and Guesde in the lead—refused to take the matter seriously. Secure in their newly acquired Marxist creed, and confident that the industrial proletariat was the class of the future, they dismissed Jaurès as a muddled purveyor of antiquated prescientific concepts. They saw mere retrogression where Sorel perceived a threat to the autonomy of the workers movement.

[35] In Engels-Lafargue, *Correspondance,* III, 268 and 293, Engels remarks humorously: "Ce que tu me dis de Jaurès me remplit de terreur. Normalien et ami de Malon, lequel est le pire?"

One may say that both the Marxists and the Sorelians, in their different ways, were concerned to preserve the proletarian character of the movement against the subtle corruptions stemming from the bourgeois intelligentsia, with its natural hankering after an evolutionary doctrine of progress. What they failed to grasp was that the intelligentsia was ceasing to be bourgeois. Before long it would be necessary to find a suitable place for it within the socialist movement. Then it would become evident that the movement was in fact made up of two different strata: workers and intellectuals, and that the latter—by virtue of their social function—would claim the directing role both within the political party of their choice, and within the social order they hoped to establish.

It would be a mistake to suppose that the participants to the pre-1914 debate saw the matter in this light. Men are not moved by sociological considerations. What mattered to Guesde, Sorel, and Jaurès was the truth of their respective doctrines. Jaurès in particular was so fervent a moralist as to define his position almost exclusively in ethical terms. Just as he had plunged into the Dreyfus Affair at a moment when most Socialists hung back (or refused to intervene in a quarrel between "two bourgeois clans"), so he had earlier become a convert to socialism when he felt able to interpret it as something more than the predestined outcome of economic change, or the reflex of the class struggle.[36] This is not to say that he neglected the theoretical aspect. He could hardly have done so without falling afoul of his teachers.[37] But his "integral socialism" (a heritage from Malon and the pre-Marxists) was integral precisely in that it encompassed a moral appeal to timeless values. This was the link between Jaurès and his rebellious pupil Charles Péguy (who subsequently broke with him on quite a different issue). One approaches the heart of the French situation—so different from the German, where moral issues were never allowed to interfere with *Realpolitik*—when one bears in mind that Péguy (later a convert to Catholicism and nationalism) had begun

[36] Lefranc, *Le mouvement socialiste,* p. 86. "Herr a convaincu Jaurès de la possibilité d'un socialisme autre que le guesdisme et le blanquisme."

[37] Andler and Herr, both Alsatians and steeped in German philosophy, were in some respects the theoretical equals of Marx's German disciples, and far superior to Lafargue and the other Guesdists.

misfortune? Disciples have nearly always exercised a pernicious influence on the thought of him they called their master, and who has often believed himself obliged to follow them. There is no doubt that his transformation by young enthusiasts into the leader of a party was a real disaster for Marx; he would have done much more useful work if he had not been the slave of the Marxists.

People have often laughed at Hegel's belief—that humanity, since its origins, had worked to give birth to the Hegelian philosophy, and that with that philosophy Spirit had at last completed its development. Similar illusions are found to a certain extent in all founders of schools; disciples expect their master to close the era of doubt by giving final solutions to all problems. I have no aptitude for a task of that kind. Every time that I have approached a question, I have found that my enquiries ended by giving rise to new problems, and the farther I pushed my investigations the more disquieting these new problems became. But philosophy is after all perhaps only the recognition of the abysses which lie on each side of the footpath that the vulgar follow with the serenity of somnambulists.

It is my ambition to be able occasionally to stir up personal research. There is probably in the mind of every man, hidden under the ashes, a quickening fire, and the greater the number of ready-made doctrines the mind has received blindly the more is this fire threatened with extinction; the awakener is the man who stirs the ashes and thus makes the flames leap up. I do not think that I am praising myself without cause when I say that I have sometimes succeeded in liberating the spirit of invention in my readers; and it is the spirit of invention which it is above all necessary to stir up in the world. It is better to have obtained this result than to have gained the banal approbation of people who

repeat formulas and enslave their own thought in the disputes of the schools.

I

My *Reflections on Violence* have irritated many people on account of the pessimistic conception on which the whole of the study rests; but I know that you do not share this impression; you have brilliantly shown in your *Histoire de quatre ans* that you despise the deceptive hopes with which the weak solace themselves. We can then talk pessimism freely to each other, and I am happy to have a correspondent who does not revolt against a doctrine without which nothing very great has been accomplished in this world. I have felt for some time that Greek philosophy did not produce any great moral result, simply because it was, as a rule, very optimistic. Socrates was at times optimistic to an almost unbearable degree.

The aversion of most of our contemporaries from every pessimistic conception is doubtless derived, to a great extent, from our system of education. The Jesuits, who created nearly everything that the University still continues to teach, were optimists because they had to combat the pessimism which dominated Protestant theories, and because they popularised the ideas of the Renaissance; the Renaissance interpreted antiquity by means of the philosophers, and consequently misunderstood the masterpieces of tragic art so completely that our contemporaries have had considerable difficulty in rediscovering their pessimistic significance.[1]

[1] "The significant melancholy found in the masterpieces of Hellenic art prove that, even at that time, gifted individuals were able to peer through the illusions of life to which the spirit of their own surrendered itself without the slightest critical reflection" (Hartmann, *The Philosophy of the Unconscious*, Eng. trans., vol. iii. p. 78; ii. p. 436).

I call attention to this view, which sees in the genius of the great Greeks a historical anticipation; few doctrines are more important for an understanding of history than that of anticipations, which Newman used in his researches on the history of dogmas.

and grimaces in honour of the union of the classes. Unfortunately for these great thinkers, things do not happen in this way; violence does not diminish in the proportion that it should diminish according to the principles of advanced sociology. There are, in fact, Socialist scoundrels, who, profiting by middle-class cowardice, entice the masses into a movement which every day becomes less like that which ought to result from the sacrifices consented to by the middle class in order to obtain peace. If they dared, the sociologists would declare that the Socialists cheat and use unfair methods, so little do the facts come up to their expectations.

However, it was only to be expected that the Socialists would not allow themselves to be beaten without having used all the resources which the situation offered them. People who have devoted their life to a cause which they identify with the regeneration of the world, could not hesitate to make use of any weapon which might serve to develop to a greater degree the spirit of the class war, seeing that greater efforts were being made to suppress it. Existing social conditions favour the production of an infinite number of acts of violence, and there has been no hesitation in urging the workers not to refrain from brutality when this might do them service. Philanthropic members of the middle class having given a kindly reception to members of the syndicates who were willing to come and discuss matters with them, in the hope that these workmen, proud of their aristocratic acquaintances, would give peaceful advice to their comrades, it is not to be wondered their fellow-workmen soon suspected them of treachery when they became upholders of "social reform." Finally, and this is the most remarkable fact in the whole business, anti-patriotism becomes an essential element of the Syndicalist programme.[1]

[1] As we consider everything from the historical point of view, it is of small importance to know what reasons were actually in the mind of the first apostles of anti-patriotism; reasons of this kind are almost never the right ones; the essential thing is that for the revolutionary workers anti-patriotism appears an inseparable part of Socialism.

The introduction of anti-patriotism into the working-class movement is all the more remarkable because it came just when the Government was about to put its theories about the solidarity of the classes into practice. It was in vain that Léon Bourgeois approached the proletariat with particularly amiable airs and graces; in vain that he assured the workers that capitalist society was one great family, and that the poor had a right to share in the general riches; he maintained that the whole of contemporary legislation was directed towards the application of the principles of solidarity; the proletariat replied to him by denying the social compact in the most brutal fashion—by denying the duty of patriotism. At the moment when it seemed that a means of suppressing the class war had been found, behold, it springs up again in a particularly displeasing form.[1]

Thus all the efforts of the *worthy progressives* only brought about results in flat contradiction with their aims; it is enough to make one despair of sociology! If they had any common sense, and if they really desired to protect society against an increase of brutality, they would not drive the Socialists into the necessity of adopting the tactics which are forced on them to-day; they would remain quiet instead of devoting themselves to "social duty"; they would bless the propagandists of the general strike, who, as a matter of fact, endeavour to *render the maintenance of Socialism compatible with the minimum of brutality.* But these *well-intentioned* people are not blessed with common sense; and they have yet to suffer many blows, many humiliations, and many losses

[1] This propaganda produced results which went far beyond the expectations of its promoters, and which would be inexplicable without the revolutionary idea.

and Napoleon III. had probably no greater admirer than Michel Chevalier.[1]

It may be questioned whether there is not a little stupidity in the admiration of our contemporaries for gentle methods. I see, in fact, that several authors, remarkable for their perspicacity and their interest in the ethical side of every question, do not seem to have the same fear of violence as our official professors.

P. Bureau was extremely surprised to find in Norway a rural population which had remained profoundly Christian. The peasants, nevertheless, carried a dagger at their belt; when a quarrel ended in a stabbing affray, the police enquiry generally came to nothing for lack of witnesses ready to come forward and give evidence.

The author concludes thus: "In men, a soft and effeminate character is more to be feared than their feeling of independence, however exaggerated and brutal, and a stab given by a man who is virtuous in his morals, but violent, is a social evil less serious and more easily curable than the excessive profligacy of young men reputed to be more civilised." [2]

I borrow a second example from P. de Rousiers, who, like P. Bureau, is a fervent Catholic and interested especially in the moral side of all questions. He narrates how, towards 1860, the country of Denver, the great mining centre of the Rocky Mountains, was cleared of the bandits who infested it; the American magistracy being impotent, courageous citizens undertook the work. "Lynch law was frequently put into operation; a man accused of murder or of theft might be arrested, condemned and hanged in less than a quarter of an hour, if

[1] "One day Michel Chevalier came beaming into the editorial room of the *Journal des débats*. His first words were: 'I have achieved liberty!' Everybody was all agog; he was asked to explain. He meant the liberty of the slaughter-houses" (Renan, *Feuilles détachées*, p. 149).

[2] P. Bureau, *Le Paysan des fjords de Norwège*, pp. 114 and 115.

an energetic Vigilance Committee could get hold of him. The American who happens to be honest has one excellent habit—he does not allow himself to be crushed on the pretext that he is virtuous. A law-abiding man is not necessarily a craven, as is often the case with us; on the contrary, he is convinced that his interests ought to be considered before those of an habitual criminal or of a gambler. Moreover, he possesses the necessary energy to resist, and the kind of life which he leads makes him capable of resisting effectively, even of taking the initiative and the responsibility of a serious step when circumstances demand it. . . . Such a man, placed in a new country, full of natural resources, wishing to take advantage of the riches it contains and to acquire a superior situation in life by his labour, will not hesitate to suppress, in the name of the higher interests he represents, the bandits who compromise the future of this country. That is why, twenty-five years ago at Denver, so many corpses were dangling above the little wooden bridge thrown across Cherry Creek." [1]

This is a considered opinion of P. de Rousiers, for he returns elsewhere to this question. "I know," he says, "that lynch law is generally considered in France as a symptom of barbarism . . .; but if honest virtuous people in Europe think thus, virtuous people in America think quite otherwise." [2] He highly approved of the Vigilance Committee of New Orleans which, in 1890, "to the great satisfaction of all virtuous people," hanged *maffiosi* acquitted by the jury.[3]

In Corsica, at the time when the *vendetta* was the regular means of supplying the deficiencies or correcting the action of a too halting justice, the people do not appear to have

[1] De Rousiers, *La Vie américaine: ranches, fermes et usines*, pp. 224-225.

[2] De Rousiers, *La Vie américaine, l'education et la société*, p. 218.

[3] De Rousiers, *loc. cit.* p. 221.

to the past seems to them a crime against science, law, and human dignity.

Socialism looks upon this evolution as being a history of middle-class force, and it only sees differences of degree where the economists imagine that they are discovering difference of kind. Whether force manifests itself under the aspect of historical acts of coercion, or of fiscal oppression, or of conquest, or labour legislation, or whether it is wholly bound up with the economic system, it is always a middle-class force labouring with more or less skill to bring about the capitalist order of society.

Marx endeavoured to describe the details of this evolution very carefully; he gave very little detail, however, about the organisation of the proletariat. This gap in his work has often been explained. He found in England an enormous mass of materials concerning the history of capitalism, which was fairly well arranged, and which had already been discussed by economists; he was therefore able to investigate thoroughly the different peculiarities of middle-class evolution, but he was not very well furnished with matter on which he could argue about the organisation of the proletariat; he was obliged, therefore, to remain content with an explanation, in very abstract formulas, of his ideas on the subject of the path which the proletariat must take, in order to arrive at the final revolutionary struggle. The consequence of this inadequacy of Marx's work was that Marxism has deviated from the path assigned to it by its real nature.

The people who pride themselves on being orthodox Marxians have made no attempt to add anything essential to what their master has written, and they have always imagined that, in order to argue about the proletariat, they must make use of what they had learned from the history of middle-class development. They have never suspected, therefore, that a distinction should be drawn between the *force* that aims at authority, endeavouring

to bring about an automatic obedience, and the *violence* that would smash that authority. According to them, the proletariat must acquire force just as the middle class acquired it, use it as the latter used it, and end finally by establishing a Socialist State which will replace the middle-class State.

As the State formerly played a most important part in the revolutions which abolished the old economic systems, so it must again be the State which should abolish capitalism. The workers should therefore sacrifice everything to one end alone—that of putting into power men who promise them solemnly to ruin capitalism for the benefit of the people; that is how a Parliamentary Socialist party is formed. Former militant Socialists provided with modest jobs, middle-class people, educated, frivolous, and eager to be in the public eye, and Stock Exchange speculators imagine that a golden age might spring up for them as the result of a cautious—a very cautious—revolution, which would not seriously disturb the traditional State. Quite naturally, these future masters of the world harbour the thought of reproducing the history of middle-class force, and they are organising themselves so that they may be able to draw the greatest possible profit from this revolution. Quite a number of such people might find a place in the new hierarchy, and what Paul Leroy Beaulieu calls the "Fourth Estate" would become really a *lower middle class*.[1]

The whole future of democracy might easily depend

[1] In an article in the *Radical* (January 2, 1906), Ferdinand Buisson shows that those classes of workers who are more favoured at the present time will continue to rise above the others; the miners, the railway workers, employees in the State factories or municipal services who are well organised form a "working-class aristocracy," which succeeds all the more easily because it has continually to discuss all kinds of affairs with corporative bodies who "stand for the recognition of the rights of man, national supremacy, and the authority of universal suffrage." Beneath this nonsense is to be found merely the recognition of the relationship existing between politicians and obsequious followers.

same way; on June 27, 1905, the *rapporteur*[1] of a law on the length of the hours of work in the mines said, in the Chamber of Deputies: "Should the application of the law give rise to disappointment among the workmen, *we have undertaken* to lay a new bill before the house." This worthy man spoke exactly like the *rapporteur* of a tariff law.

There are plenty of workmen who understand perfectly well that all the trash of Parliamentary literature only serves to disguise the real motives by which the Government is influenced. The Protectionists succeed by subsidising a few important party leaders or by financing newspapers which support the politics of these party leaders; the workers have no money, but they have at their disposal a much more efficacious means of action; they can inspire *fear*, and for several years past they have availed themselves of this resource.

At the time of the discussion of the law regulating labour in mines, the question of the threats addressed to the Government cropped up several times: on February 5, 1902, the president of the commission told the Chamber that those in power had "lent an attentive ear to clamourings from without; that they had been inspired by a sentiment of benevolent generosity in allowing themselves to be moved (*despite the tone* in which they were couched), by the claims of the working classes and the long cry of suffering of the workers in the mines." A little later he added: "We have accomplished a work of social justice, . . . a work of benevolence also, in going to those who toil and suffer, like friends solely desirous of working in peace and under honourable conditions, and we must not by a brutal and too egotistic refusal to unbend, allow them to give way to impulses which, *while not actual revolts*, would yet have as many victims." All these confused phrases served

[1] See Translator's Note, p. 162.

to hide the terrible fear which clutched this grotesque deputy.[1] In the sitting of November 6, 1904, at the Senate, the minister declared that the Government was incapable of giving way to threats, but that it was necessary to open not only ears and mind, but also the heart "to respectful claims" (!); a good deal of water had passed under the bridges since the day when the Government had promised to pass the law under the threat of a general strike.[2]

I could choose other examples to show that the most decisive factor in social politics is the cowardice of the Government. This was shown in the plainest possible way in the recent discussions on the suppression of registry offices, and on the law which sent to the civil courts appeals against the decisions of the arbitrators in industrial disputes. Nearly all the Syndicalist leaders know how to make excellent use of this situation, and they teach the workers that it is not at all a question of demanding favours, but that they must profit by *middle-class cowardice* to impose the will of the proletariat. These tactics are supported by so many facts that they were bound to take root in the working-class world.

One of the things which appear to me to have most astonished the workers during the last few years has been the timidity of the forces of law and order in the presence of a riot; magistrates who have the right to demand the services of soldiers dare not use their power to the utmost, and officers allow themselves to be abused and struck with a patience hitherto unknown in them. It is

[1] This imbecile has become Minister of Commerce. All his speeches on this question are full of balderdash; he has been a lunacy doctor, and has perhaps been influenced by the logic and the language of his clients.

[2] The Minister declared that he was creating "real democracy," and that it was demagogy "to give way to external pressure, to haughty summonses, which, for the most part, are only higher bids and baits addressed to the credulity of people whose life is laborious."

becoming more and more evident every day that working-class violence possesses an extraordinary efficacity in strikes: prefects, fearing that they may be obliged to use force against insurrectionary violence, bring pressure to bear on employers in order to compel them to give way; the safety of factories is now looked upon as a favour which the prefect may dispense as he pleases; consequently he arranges the use of his police so as to intimidate the two parties, and skilfully brings them to an agreement.

Trades union leaders have not been long in grasping the full bearing of this situation, and it must be admitted that they have used the weapon that has been put into their hands with great skill. They endeavour to intimidate the prefects by popular demonstrations which might lead to serious conflicts with the police, and they commend violence as the most efficacious means of obtaining concessions. At the end of a certain time the obsessed and frightened administration nearly always intervenes with the masters and forces an agreement upon them, which becomes an encouragement to the propagandists of violence.

Whether we approve or condemn what is called *the revolutionary and direct method*, it is evident that it is not on the point of disappearing; in a country as warlike as France there are profound reasons which would assure a considerable popularity for this method, even if its enormous efficacy had not been demonstrated by so many examples. This is the one great social fact of the present hour, and we must seek to understand its bearing.

I cannot refrain from noting down here a reflection made by Clemenceau with regard to our relations with Germany, which applies equally well to social conflicts when they take a violent aspect (which seems likely to become more and more general in proportion as a cowardly

middle class continues to pursue the chimera of social peace): "There is no better means," he said (than the policy of perpetual concessions), "of making the opposite party ask for more and more. Every man or every power whose action consists solely in surrender can only finish by self-annihilation. Everything that lives resists; that which does not resist allows itself to be cut up piecemeal" (*Aurore*, August 15, 1905).

A social policy founded on middle-class cowardice, which consists in always surrendering before the threat of violence, cannot fail to engender the idea that the middle class is condemned to death, and that its disappearance is only a matter of time. Thus every conflict which gives rise to violence becomes a vanguard fight, and nobody can foresee what will arise from such engagements; although the great battle never comes to a head, yet each time they come to blows the strikers hope that it is the beginning of the great *Napoleonic battle* (that which will definitely crush the vanquished); in this way the practice of strikes engenders the notion of a catastrophic revolution.

A keen observer of the contemporary proletarian movement has expressed the same ideas: "They, like their ancestors (the French revolutionaries), are for struggle, for conquest; they desire to accomplish great works by force. Only, the war of conquest interests them no longer. Instead of thinking of battles, they now think of strikes; instead of setting up as their ideal a battle against the armies of Europe, they now set up the general strike in which the capitalist régime will be annihilated.[1]

The theorists of social peace shut their eyes to these embarrassing facts; they are doubtless ashamed to admit their cowardice, just as the Government is ashamed to admit that its social politics are carried out under the threat of disturbances. It is curious that people who

[1] Ch. Guieysse, *op. cit.* p. 125.

boast of having read Le Play have not observed that his conception of the conditions of social peace was quite different from that of his imbecile successors. He supposed the existence of a middle class of serious moral habits, imbued with the feelings of its own dignity, and having the energy necessary to govern the country without recourse to the old traditional bureaucracy. To those men, who held riches and power in their hands, he professed to teach their *social duty towards their subjects*. His system supposed an undisputed authority; it is well known that he deplored the licence of the press under Napoleon III. as scandalous and dangerous; his reflections on this subject seem somewhat ludicrous to those who compare the newspaper of that time with those of to-day.[1] Nobody in his time would have believed that a great country would accept peace at any price; his point of view in this matter did not differ greatly from that of Clemenceau. He would never have admitted that any one could be cowardly and hypocritical enough to decorate with the name of social duty the cowardice of a middle class incapable of defending itself.

Middle-class cowardice very much resembles the cowardice of the English Liberal party, which constantly proclaims its absolute confidence in arbitration between nations: arbitration nearly always gives disastrous results for England.[2] But these *worthy progressives* prefer to

[1] Speaking of the elections of 1869, he said that there had been "violences of language which France had not till then heard, even in the worst days of the Revolution" (*Organisation du Travail*, 3rd ed. p. 340). Evidently, the revolution of 1848 was meant. In 1873 he declared that the Emperor could not congratulate himself on having abrogated the system of restraint on the press, before having reformed the morals of the country (*Réforme sociale en France*, 5th ed. tome iii. p. 356).

[2] Sumner Maine observed a long while ago that it was England's fate to have advocates who aroused very little sympathy (*Le Droit international*, French translation, p. 279). Many Englishmen believe that by humiliating their country they will rouse more sympathy towards themselves; but this supposition is not borne out by the facts.

pay, or even to compromise the future of their country, rather than face the horrors of war. The English Liberal party has the word *justice* always on its lips, absolutely like our middle class; we might very well wonder whether all the high morality of our great contemporary thinkers is not founded on a degradation of the sentiment of honour.

certainty; it is necessary to make an appeal to *ensembles* of images capable of evoking *en bloc and by intuition alone*, in advance of all reflective analysis, the mass of feelings that correspond to the various manifestations of the war carried on by socialism against modern society. The syndicalists resolve this problem perfectly by concentrating the whole of socialism in the drama of the general strike; there is thus no place for the conciliation of contraries through the nonsensical jargon of *official savants*; everything is clearly marked out in such fashion that there can be only one possible interpretation of socialism."[47]

A paradoxical thing about the syndicalist myth is that it is at once too clear and too obscure for its critics. As has been already shown, its professed end, the catastrophic general strike, appears to them too radical, too uncompromising, too little open to the modifications that political exigencies might demand; on the other hand they find it vague because it does not set forth specific objects of reform, it does not deal with what they are accustomed to call practical problems, with hypotheses that can be compared with other hypotheses and evaluated in advance.[48] Sorel was completely indifferent to all attempts to prove that the general strike was impractical or unscientific.[49] As he says: "Without the use of formulas, which may appear vague or erroneous to the scientist, the man of action will never arrive at lasting results. It is often observed that unintelligible dogmas easily produce heroic acts. It is useless to argue with anyone accustomed to refer everything to great principles that do not evoke any real image, that produce their effects automatically without leading to any act of reflection, and that maintain themselves in the mind with an extraordinary tenacity, sometimes succeeding in dominating it in an absolute manner. It would be puerile to condemn processes that have their roots in the laws of our mind."[50]

The intellectualist is so accustomed to treat the future as

a simple projection of the present, as a series of events arising from a logical development and consequently susceptible to scientific prediction, that he finds it almost impossible to believe in the honesty, much less the validity, of a theory that quite frankly admits the improbability of achieving its professed end. The fact that in the past great ideas have never fulfilled their promises is explained by him as due to a Stupidity or a Maliciousness that Progress will dispel in the future; but the anti-intellectualist, not having the intellectualist's faith in the ability of progress to conquer such abstract and personified forces, must rely on previous experience as the only possible guide to an understanding of the probable outcome of similar aspirations in the future. This experience shows him that, in the words of Sorel, "there is a heterogeneity between the ends realized and the ends given." Just as Christianity, the French Revolution, the Risorgimento were given their dynamic force by faith in elevated ideals, which were themselves never achieved, so might a widespread belief in the general strike lead to a similarly vast transformation of society without actually attaining a catastrophic revolution in the way looked for. A consideration of these phenomena shows that it is a psychological mistake to treat the social myth as a logical demonstration: "In order to appreciate the bearing of the idea of the general strike, it is necessary to abandon entirely the manner of discussion that is current among politicians, sociologists, or men having pretensions to practical science. One can concede to the opponents everything that they endeavor to demonstrate without reducing in any way the value of the thesis that they believe easy to refute; it matters little whether the general strike is a partial reality, or only a product of popular imagination. The only question is to know whether the general strike really contains everything that the socialist doctrine of the revolutionary proletariat expects."[51]

The proper attitude in such an investigation, then, is not to judge the content of the myth on the basis of philosophy, history, or economics, but merely to inquire if the proletarians active in the revolutionary movement find in the general strike a complete representation of their socialist conceptions. Sorel thought that such an inquiry would show that this objective of the general strike is indeed "the *myth* in which socialism is comprehended in its entirety, that is to say, an organization of images capable of evoking instinctively all the sentiments that correspond to the various manifestations of the war engaged by socialism against modern society. Strikes have engendered in the proletariat the most noble, the most profound and the most moving sentiments that it possesses; the general strike groups them all in a harmonious picture and, by their conjunction, gives to each of them its maximum intensity; appealing to very poignant recollections of particular conflicts, it vividly colors every detail of the representation appearing before the understanding. We thus obtain in a perfectly clear manner this intuition of socialism that language is not able to give—and we obtain it in a totality perceived instantaneously."[52]

Although many of the followers of Marx have treated his doctrine as a new scholasticism, he himself, according to Sorel, drew all his best intuitions from a close observation of actual proletarian practice, and the further development of these practices, culminating in the idea of the general strike, has only served to confirm his theory by giving it an integral formulation in the revolutionary myth. One of the most interesting results of this development is the new meaning that is given to the point of departure for all Marxian socialism, the doctrine of class struggle.[53] It has long been pointed out that observation of society shows not two classes but many, and this is quite true if divisions are made by occupations; but Sorel believed that a completely

clear dichotomous division would be forced on ideological grounds by the myth of the general strike, which pictures all social progress as a battle waged between opposing armies. As he says: "No philosophical explanation of facts observed in practice could furnish as keen an insight as the completely simple picture that the general strike sets before the eyes." The virtue of the revolutionary myth appeared peculiarly great to Sorel because it effectively disposed of two of the gravest dangers threatening the future of socialism. These dangers were the tendency of the upper levels of the proletariat to desert to the bourgeoisie, and the equally fatal tendency of the masses to fall under the influence of a Caesar. Since both these tendencies depend on the weakening of class lines, he looked to the idea of the general strike as the only bulwark against ideological corruption: "The more the policy of social reforms becomes preponderant, the more socialism will feel the need of opposing to the picture of progress that such a policy endeavors to realize, the picture of the total catastrophe that the general strike furnishes in a truly perfect manner."[54]

Not only does the myth of the general strike provide the most effective means of maintaining a clearly defined class struggle, but, according to Sorel, it also offers the best possibility of accomplishing the revolution under the conditions postulated by Marx—conditions of very considerable importance since they would, in his theory, decide the whole character of the movement. Marx always emphasized the necessity of an adequate preparation of the proletariat in order to give its struggle a meaning quite different from the spontaneous mass uprisings that have swept society in almost all periods of history. If it is to avoid the excesses and futility of such rebellions, the proletariat must be disciplined, must have a clearly developed ideology of its own with which to replace the society that it overturns. According to Sorel, such a class-consciousness can best be

developed by syndicalist intransigence, just as Christianity, by a similar rejection of conciliation, was able to maintain its individuality in the Roman world.[55] It is with such present conditions in mind that he says of the early Church: "Most likely it would have been able to obtain toleration, as did many other esoteric cults, as did Judaism; but it sought to isolate itself; in this way it provoked distrust, and even persecution. There were certain intransigent doctors who prevented the new religion from taking a normal place in Roman society; however there were not lacking sage persons who labeled Tertullian and all those who did not wish to accept any conciliation as completely mad. Today we see that it is thanks to this senselessness that Christianity has been able to form its own ideas and become master of the world when its hour arrived."[56]

Coupled with the fulfillment of this condition is the tendency of the general strike idea to preserve the essential principles of capitalism from decadence, and, as has already been pointed out, to bring on a clear-cut struggle of ideologies in the Marxian catastrophic sense, so that the capitalist organization of production may be preserved in all its original vigor. "The workers are accustomed," says Sorel, "to see their revolts against the necessities imposed by capitalism succeed during times of prosperity; as a result one is able to say that the single fact of identifying revolution and general strike banishes all idea of conceiving that an essential transformation of the world could result from economic decadence."[57]

A final condition of the proletarian revolution is that it should not be bound by a preconceived program for the future. As Marx said, "He who composes a program for the future is a reactionary."[58] Sorel felt that the syndicalist myth was the best possible guarantee against the dangers of such doctrinaire utopianism. "Socialism," he declares, "is not a doctrine, a sect, a political system; it is the emanci-

pation of the working classes who organize themselves, instruct themselves, and create new institutions. This is why I ended an article on the socialist future of the syndicats with these words: 'to condense my thought into one formula, I shall say that the whole future of socialism dwells in the autonomous development of the workers' syndicats.' "[59] The utopians and the socialist politicians object strenuously to such an autonomous development because it dispenses with their proposals for directing socialism according to their preconceived plans of an idyllic future. Marx, however, regarded the future proletarian society not as an artificial creation of professional thinkers, but as the determined product of an economic structure that, through a technological continuity, would be derived directly from the capitalist methods of production.[60] For this reason Sorel looked to the workers themselves, rather than to the intellectuals, for proper guidance in the development of socialism. "The just customs of the workshop," he says, "are evidently the source from which the future law will come; socialism will inherit not only the machinery that will have been created by capitalism, and by the science that results from technical development, but also the procedure of cooperation that will be constituted at length in the factories for the purpose of utilizing to the best advantage the time, the strength and the skill of men."[61]

The process by which these forms of capitalism are to to be transformed into a new social organization is one that has never been explicitly described by syndicalists, and Sorel justifies the apparent obscurity on the ground that analysis and rational deduction are completely incompetent to deal with processes of this sort that involve radical changes in the most mysterious of all elements in economics, that of production. The attempt of intellectualists to reduce such complicated relationships to a science, and to give them a logical systematization, has not produced the prom-

of the state, into the drawing-rooms, into the pleasure resorts, they generally cease to be revolutionaries and talk wisely of evolution."[71]

Since the main object of the political general strike is to gain control of the state, rather than to abolish the state completely, as in the syndicalist general strike, it appeals to quite different emotions and gives rise to quite different qualities among its proponents. The socialist politician has no objection to the power of the state as such: his aim is merely to discredit the men at present exercising that power and to harass them by encouraging ideas of jealousy and vengeance among the workers. To their political leaders the proletariat is little more than an instrument, so Sorel thought, to be used as a colonial administrator uses his forces and to be rewarded with the prizes customarily given to such troops: "They sustain the ardor of their men, as the ardor of mercenary troops has always been sustained, by exhortations to the next pillage, by appeals to hatred, and also by the petty concessions that permit them already to dispose of certain political places. However, as Marx put it in 1873, the proletariat is for them only cannon fodder and nothing else."[72]

In contrast to such a war of conquest, Sorel described another form of battle: one in which not plunder is the objective but glory; one that appeals not to jealousy but to heroism; in short, one that has its end in itself, that is truly felt as a test of confident strength in the same way that the wars of ancient Greece or the Revolutionary wars in France were a test of strength. The high motives and firm ideals essential to this form of battle, he thought, could be found in the contemporary world only in the violence associated with the syndicalist general strike. "This general strike," he says, "in affirming that it intends to suppress the state, marks in a very clear manner its indifference to the material profits of conquest; the state has been, in effect,

the organizer of the war of conquest, the dispenser of its fruits, and the *raison d'être* of the dominant groups who draw the profit from all these enterprises and who leave the expenses to be supported by the whole of society."[73]

The way that socialists conceive their relationships to the state determines, according to Sorel, the kind of social conflict that the application of their theories will produce; it is on this basis that he makes a useful distinction between *force*, which uses the authority of the state to demand automatic obedience, and *violence*, which seeks above all to shatter that authority. The bourgeois state, he thinks, has relied for its successful development on the use of force; its natural laws of economics are simply the expression of a complicated evolutionary process in which coercion has been used with some skill to produce and maintain the capitalist system.[74] Since it is maintained by force, capitalism may be radically changed or even completely overturned by force, but such an event could mean only the substitution of a new set of masters for the old; it would do nothing to modify the essential methods of the bourgeois state.

In Sorel's opinion, the proper object of the proletarian revolution was not simply to change masters but to change the essential forms of society; a change that could be effected only by violence, by a complete overthrow of the whole conception of the state with its attendant sanctions and its privileges exercised by a ruling minority.[75] To Marx and to Sorel the significance of socialism did not lie in its ability to wring concessions from an all-powerful state, but in the new juridical basis that it offered to society.[76] The utopian theorists look on socialism as a humanitarian movement that must depend for its success on the generosity, the benevolence, or at most, on the enlightened self-interest of the possessing bourgeois class. The true Marxian, however, regards it as simply the objective manifestation of

profound changes in the relations of production: when, for example, he speaks of the expropriation of the expropriators, he does not imply an act of brigandage, but is merely describing in concrete terms the assertion of a new ideology more closely related to the economic basis of society and thus more expressive in a positive way of the true juridical principles of the time than is the bourgeois ideology. As Sorel says: "The vindication of the proletarians is not a brutal revolt of men who resort to immediate violence in order to attain a better lot; it is not, consequently, an insurrection of villeins and slaves; it is not even a grievance formulated in the name of a more or less ingenious ideal; but it is a truly juridical vindication, founded on the rights of law drawn from the same sources as those that constitute the law of the bourgeoisie."[77]

Modern society is such a delicately balanced organism that a complicated system of law and regulation has grown up around it, and has become so much a part of modern thought that it is difficult to discuss violence without arousing associations of lawlessness, of arbitrary assertions of individual will. Considerations of material prosperity have assumed so great a place in bourgeois life that peace and progress have come to be looked upon as necessarily connected and acts of violence are thought of instinctively as manifestations of a regression to barbarism.[78] There was, however, nothing anarchical or arbitrary in Sorel's conception of violence: paradoxically enough he was less ready to justify it as an ordinary instrument for the enforcement of ideas than have been many of the most ardent advocates of liberty, equality, and fraternity. At least he recognizes and appreciates, as few of them do, the part that violence has played in history and sets forth without any equivocation the role that he thinks it should properly fill in the present.[79] What is even more unusual he defines the grounds for his advocacy of violence and the specific limitations that he

puts on it: these grounds and these limitations are both derived from a Marxian conception of a relatively objective role to be played by the proletariat in the development of society; and they are based on what, in the widest sense of the term, must be called moral considerations. As Sorel says of Marx: "He never failed to set forth the juridical point of view in social wars. In his eyes the modern class struggle has for its objective a transformation of the principles of legislation of a country; it is a right that raises itself against a right; it is not a simple conflict of interests. In order to understand his thought, one must never separate what he says on the struggle of the proletariat against capitalism from the theory of the *mission of the proletariat*, which plays a leading part in his doctrine, a mission whose end is essentially moral."[80]

Some consideration has already been given in the preceding chapters to Sorel's conception of the basis of morals and to the mission that he hoped to see fulfilled in the proletariat. This mission was a moral one in the sense that it concerned the relationships of man with his fellows, and it derived its positive significance from a myth of struggle very similar to previous myths that have provided the indispensable incentive to all great social and moral movements. In Sorel's view, these movements arise and retain their force only under the stimulus of an active struggle, of a war against opposing principles and institutions, and when this stimulus disappears, the social institutions that were based on it lose their meaning and fall into decadence.[81] Civilization has depended, he thought, on a long succession of such struggles, and if the present world must look to the proletariat for the regeneration of humanity, "it is," he says, "merely because this is the only class that at the present time may be animated with a warlike spirit and, consequently, the only one that may have virility and be capable of progress."[82] This progress, however, depends en-

tirely on the role that the proletariat is to play in the struggle with capitalism. If it allows itself to be intimidated or bought off by concessions, even though its leaders should rise to positions of power in the state, it will fulfill no moral purpose because it can acquire moral strength only through the discipline of social war.[83]

Sorel had no faith in the naïve belief of the eighteenth-century sentimentalists that the poor, since they are supposed to have remained closer to nature, are therefore more fitted to a life of virtue; he thought it ridiculous to suppose that these natural men should, by reason of their poverty, possess any moral qualities intrinsically superior to those of the higher classes.[84] In fact no orthodox conservative realized more fully than he the dangers inherent in any uprising of oppressed masses who had not been thoroughly prepared by a rigorous social discipline. Such a revolt could do nothing to advance moral progress since it would be inspired only by feelings of vengeance or hatred: "Hate is able to provoke disorders, to ruin a social organization, to cast a country into a period of bloody revolutions; but it produces nothing." However justified it might be from a humanitarian point of view, Sorel denied that such an act of brigandage could properly be called socialism, because socialism rests on a juridical basis and, as he says: "The activating force of the whole socialist movement is the opposition that is produced between morals and law."[85]

Violence is significant in syndicalist theory chiefly as an exemplification of this opposition, as a means for ensuring that the issues involved shall be clear-cut and the result decisive. It does not necessarily entail a great development of brutality or a general bloodpurge so long as the capitalist class is energetic and willing to help maintain the class division by a frankly reactionary class policy. As Sorel points out, the history of primitive Christianity shows that the actual facts of persecution and martyrdom are so few

as to be almost insignificant; their importance lies in their effects, not in their frequency. Although modern research shows that there were very few actual martyrs, yet these few were quite enough to serve as a juridical proof of the truth and triumph of the new religion, and it was on the basis of such rare heroic acts that the militant ideology of the Church was founded.[86] In a similar way the conflicts incidental to the spread of socialism, by being associated with the idea of the general strike, may be amplified and given an epic quality that will serve perfectly to maintain a catastrophic conception and a well-defined separation of the classes. "Thus," says Sorel, "the objection that is often directed at revolutionaries is removed; civilization is not menaced with succumbing to the consequences of a development of brutality, since the idea of the general strike allows the conception of class struggle to be sustained by means of incidents that would appear mediocre to bourgeois historians."[87]

The modern world, with its humanitarian outlook, its horror of the brutalities that have characterized the history of previous eras, is easily led to an uncritical acceptance of the dogma that all violence is bad. Very seldom has any serious attempt been made to understand its significance as a factor in the development of civilization or to understand the social implications of its abandonment.[88] Because of his constant tendency to treat abstractions as things in themselves, the intellectualist looks on the disappearance of violence as a sign of absolute progress: having failed to uncover the underlying motives of violence, he is unable to recognize these motives when they reassert themselves in a different guise, and so falls into the error of thinking that such a change in their manifestation represents a genuine moral advance. Sorel believed that the mysteries of a people's moral conceptions could be penetrated only by a study of the practices of the dangerous classes in society, so he

bring certain immediate gains to the leaders of the party and even, in a more limited way, to the proletariat as a whole, but such gains could be obtained only at the cost of a degradation of the ethical motives of socialism. "When politicians intervene," he says, "there is, and almost necessarily, a notable lowering of morality, because these men do nothing for nothing and act only on condition that the favored association joins with their clientele. This takes us far from the road to the sublime, instead we are simply on that which leads to the practice of politico-criminal societies."[93]

If socialism is to attain any sublimity, Sorel thought, if it is to free the proletariat from the slave morality imposed by capitalism, it must reject the self-interested leadership of politicians and intellectuals; in fact the whole future of revolutionary syndicalism depends, he believed, on the development in the proletariat of a new ethic based on the qualities demanded by a society of free producers.[94] Consequently the most difficult task of socialist theory is, as he himself states, to show "how it is possible to conceive the transition from the men of today to the state of free producers laboring in a workshop rid of masters."[95] Since there are no political precedents for such a social regime—not even democracy, which depends on external constraints of the same type as capitalism[96]—many socialists have given way to pure utopianism in their solutions of the problem. Such hypotheses, however, were too illusory to satisfy Sorel: he had no faith in the ability of prophets to foresee the future. Accordingly he explicitly confines his task to an investigation of tendencies in the present that might serve, in ways similar to analogous tendencies in great social movements of the past, as the basis of a revolution in social and economic relationships.[97] If some light can be thrown on these tendencies, it would be possible, he thought, to see more clearly the way along which the proletariat may

go in developing its own relationships of production; for, "The activating force of the revolutionary movement ought also to be the activating force of the morality of the producers."[98]

Just as Christianity and the French Revolution derived their dynamic force from myths that aroused in their adherents a self-sacrificing enthusiasm capable of transcending the ordinary difficulties standing in the way of coöperation among individuals, so, Sorel thought, the myth of the general strike might offer to the proletariat a similar basis for a common inspiration and purpose arising from needs already manifested among the workers themselves. By giving to these needs an epic character, Sorel believed that the syndicalist myth with its militant conception of a violent class war might very well engender qualities of personal responsibility and personal significance analogous to those, for example, that aroused in the ill-organized soldiers of the Revolutionary armies a will to victory that proved much more effective than the automatic discipline enforced in the royal armies. It is just such qualities of individual initiative and self-discipline that would be demanded by a possible regime of free production; consequently Sorel considers that this is a decisive factor in favor of revolutionary syndicalism.[99]

Aroused to a passionate sense of individualism by the revolutionary myth and disciplined by a struggle with the representatives of the bourgeois state, the proletarians, Sorel thought, would then be capable of developing certain characteristics in relation to production that have in the past reached their full expression only in the lives of some great artists. "The free producer in a highly progressive workshop," he says, "should never measure the work that he furnishes by an external scale; he finds all the models presented to him mediocre and wishes to surpass everything that has been done before him. Production thus finds itself

assured of improving always in quantity and in quality; in such a workshop the idea of indefinite progress is realized."[100] Because of the interesting analogy between these requirements of a free producer and the qualities engendered by the zeal of the artist, Sorel is led to state that art is an *anticipation* of the most highly developed production. In the past the relationships of production have not been suited to a widespread manifestation of such qualities, just as in a similar way they were not suited, for example, to the exploitation in Hellenistic times of Hero's steam engine, or to the acceptance in the eighteenth century of Vico's philosophical ideas; but the enthusiastic receptions of Watt's invention in the nineteenth century and the popularity enjoyed by pragmatism today justify the assertion that the attitudes of Hero and Vico were anticipations of contemporary developments. It is in this same sense that Sorel believed it legitimate to regard the relatively isolated examples of artistic individualism in the past as anticipations of certain qualities that are already taking form in the gradual evolution of a self-conscious proletariat and that, under the influence of a stimulus analogous to the inspiration of the artist, might provide the ethical framework for a system of free production.

One of the most obvious characteristics that distinguishes the artist from the common artisan has been his originality and his unwillingness to reproduce accepted types. Such qualities, Sorel thought, are also the mark of the inventor; in the many very considerable improvements made by anonymous workers to the crude machines first offered them by modern industry, he saw a manifestation of what is essentially an artistic urge. Another characteristic of the artist, he believed, is a constant striving for integrity of workmanship, and here again an interesting analogy is to be found, for, despite the pessimistic prophecies of Fourier, the more advanced modern industry has become, the more

honest and substantial have been its products. Finally, he states, the production of the artist is not governed by the expectation of a personal, immediate reward in proportion to merit, but is simply the expression of a striving for perfection quite independent of external recognition. It was such an impulse, Sorel thought, that must have animated the architects of the great Gothic cathedrals; for they apparently received very little notice from their contemporaries and possibly, even, may have been the only real admirers of their own masterpieces. Similarly in modern times, the inventor, who has so seldom received the compensation due his labors, is led to his task not by the hope of material reward but simply by a spontaneous urge to make innovations and improvements. The tremendous technological progress of modern industry has depended in large degree on the contributions of ingenious workers to the refinement of machinery and methods; yet, as with the artist, these workers asked for no recompense and as a matter of fact have seldom got any.[101]

Great movements in the history of ideas have never been achieved by men who act only after a rational calculation of the personal advantages and disadvantages of their projected plans. The soldier in the early campaigns of Napoleon, the Huguenot who gave up his home and livelihood, the early Christian martyr—none of these men could have hoped to attain any of the ordinary material advantages that are commonly reckoned as the sole motive of men's activity. Whatever objective judgment may be passed on the wisdom or success of such enthusiasts, it is an undoubted fact that a large number of them did find in the zealous support of certain principles an adequate compensation for the hardships they suffered.[102] The future of socialism, Sorel thought, depends on the possibility of developing in the proletariat a similar moral strength. In the essentially creative and artistic qualities manifested by the

skilled worker in countries of high production, he believed, the basis of such an ethic was already to be found—a basis that needed nothing more for its development than the stimulating force of an enthusiasm capable of overcoming the inertia, the prejudices, and the demand for immediate satisfactions of the individual worker.

"There is," he says, "only one force that could today produce this enthusiasm without whose coöperation no morality is possible: this is the force that results from the propaganda in favor of the general strike.

"The preceding explanations have shown that the idea of the general strike, constantly rejuvenated by the feelings that proletarian violence provokes, produces a completely epic state of mind and, at the same time, leads all the powers of the soul toward the conditions that allow the realization of a workshop functioning freely and progressively in a high degree; we have thus recognized that there are very close relationships between the feelings of the general strike and those that are necessary in order to provoke a continued progress in production. Therefore we have the right to maintain that the modern world possesses the prime mover that *is able* to assure a morality of producers."[103]

CHAPTER VIII

CONCLUSION

$E = mc^2$
—*Albert Einstein*

EACH AGE HAS CHARACTERISTIC QUESTIONS to ask of the world it knows. Each thinker within an age has his own way of framing those questions; the fruitfulness of his ideas, in fact, depends directly on the intuitive grasp he may have of the particular concerns of his time and on his ability to realize their implications. It is becoming every day more evident that one such fundamental question that marks our own time is: What is energy? It is precisely this question that is implicit in the life work of Sorel. The inner logic of his work lies in the reiteration of the question through the whole range of his speculations on history, ethics, aesthetics, religion, politics, science. When he speaks of the fall of Rome, or the moral upsurge of the Risorgimento, or the eroticism of modern music, or the militant myth of Christianity, or the images of battle that could produce a violent assertion of will in the general strike, or the dynamic flow that constitutes the reality of the physical world, his language is full of energy words. This preoccupation is not accidental. The work of the physical scientists from the sixteenth century—and most dramatically in the nineteenth and twentieth centuries—has made evident the tremendous potentialities of the universe which may be unlocked by the right key. Man has acquired an entirely new consciousness of the existence of energy; he has been alternately enraptured by the possibilities of its constructive use and ridden by fears that it might be turned destructively against him.

sent it as a complex process arising from the interaction of a multiplicity of social forces; while his anxious concern for the future of morality led him o insist on the development of stable and tested institutions, and hence to epresent revolution as the forceful action of a single movement, affirming ts distinctive ethic. '*We feel the weight of history*,' Sorel once wrote, 'but ll the same we cannot claim solidarity with either a past which is lost or a uture which is yet to come.'[54] We cannot act, in other words, as though we could simply produce what we intend – the 'weight' of history continually deflects us; but at the same time, we cannot rely upon what history roduces unasked, for nothing of significance is produced that is not ooted in a set of profound convictions. The future socialist order, then, must be embodied in intentions and beliefs which antedate its triumph; but he process of history consistently detaches the outcomes of action from he intentions and beliefs of the actors.

No doubt it is a truism to say that all revolutions involve both continuity nd discontinuity. But in the context of Sorel's thought, it was a truism that ad peculiar force. For as he saw the question, both continuity and discontinuity entered, in conflicting ways, into the definition of revolutionary hange. In one view, the assumption of continuity is crucial; for unless roups can see themselves as the 'motive power' of change, regarding heir environment as material to be shaped and remoulded by victory, they an never undertake revolutionary action at all. Without such a view, it ould be irrational to affirm the value of a new and distinctive mode of organization, and the groups which Sorel so admired could never exist. But another view – which may be found, for example, in Tocqueville's account of social change in the United States or in Sorel's own discussion of he bourgeois revolution – it is precisely the discontinuity between action nd outcome which is definitive. The process of change is to be seen as evolutionary because it surpasses the understanding and hence the control of those who participate in it; the motor of change is the ensemble of ctions, not the intention of a group, for what is brought about surpasses hat anyone could have conceived. Accepting the force of both views at nce, Sorel could hope for nothing more than a temporary and unstable onjunction between the requirements of the two. The instability of his ought, therefore, his shifting attachments as new possibilities presented emselves, need not be dismissed – as is so often done – as sheer irresponsibility, or as the product of personal ambition;[55] for the impossibility

of a permanent solution and the overriding significance of contingent circumstances are written into the way in which he thought of change. Revolution is, in one aspect, an action, a commitment, an assertion of what is valued; but it is also a process, an outcome of complex causation. No system of thought can establish a logical relation between its aspects; yet neither can be dispensed with or ignored.

Revolution and party

Sorel's discussion of the strategy of change revolves principally around his views of the role of the political party. As is usually the case, we at once encounter what appears to be an outright contradiction, for Sorel's attitude to the party underwent a radical change. He is principally associated with the attitudes expressed in *Reflections on Violence,* a work which gives vent to the most bitterly anti-political prejudices and opposes root and branch any notion of socialism in which the political party is to play a part. Readers of Sorel's revolutionary syndicalist writings may therefore be startled by the views put forward by him in the previous decade, when, as a moderate though scarcely orthodox revisionist, he regarded the party as a principal vehicle of change. The parties, he wrote, were clear signs of the coming of age of socialism and of its transformation from a sect to a public and responsible movement. 'The sect,' he said, 'can isolate itself; isolation is even a condition for its doctrinal purity; the *political party* cannot exist unless it is involved in the general life' of society.[56]

In *Reflections on Violence,* Sorel was to recommend 'isolation,' not 'involvement,' and for this reason was to reject parliamentary politics for the practice of violence. But although his attitude to the party thus shifted drastically, his concept of it remained the same: in the early 1900s as in the 1890s he saw the party as a means by which a social class comes to be attached to supra-class ideals and aspirations. Initially, then, he valued the party as an instrument of that 'juridical preparation' which he saw as essential to the emergence of a socialist society.* By participating in issues remote from the material interests of the proletariat, the socialist party would cultivate a sense of justice among the workers and so avoid the danger that the socialist movement would become merely an interest

* See 'On Science and Revolution' below.

group devoted to the collective egoism of a class. If the workers were unprepared for anything except the pursuit of immediate gain, they would not be able to organize, at any point, a new social order, especially an egalitarian one in which the pursuit of group advantage would be out of place. The selflessness which will be called for must be cultivated now, within capitalist society itself: 'The only manner in which we may cultivate a sentiment is by exercising it whenever an opportunity presents itself. Since we propose the effacement of classes, we must exercise the sentiments of justice, especially in circumstances in which they conflict with class divisions. In fact, we cannot be sure that we are pursuing justice unless we are quite certain that we are disinterested.' The party, in short, is valued for its role in that process which Sorel described as 'the great preoccupation of my life – the genesis of morality.'[57]

We find, therefore, a staunch support of the principles of 'Truth, Justice, and Morality' as upheld by the International, and a warm sympathy for Jaurès's defence of Dreyfus and for his efforts to mobilize the working class in Dreyfus's cause. Only a few years later, we find that the International and its doctrines are sharply condemned and that Jaurès is denounced as a charlatan, along with all the other French socialist politicians. But the reason offered is, once again, the necessity of institutional, juridical, and ethical preparation for socialism. This theme is crucial to Sorel's preface for Pelloutier's *Histoire des bourses du travail,* and indeed to *Reflections on Violence* itself. Political action is rejected because it fails to prepare for the future in a direct and concrete way; it separates means from ends, presenting socialism as a goal to be achieved instrumentally, rather than as a set of practices and beliefs immediately present in the workers' movement. It was in his reformist period, as an admirer of Eduard Bernstein, that Sorel had said that '*movement* and *final result* become identified in our minds': but it was in the light of this very principle that he was soon to reject the reformist strategy, for, as he came to think, political action necessarily relegates the movement to a subordinate role. Agencies and interests are brought into being which must demonstrate their utility by producing tangible results; to do so they must conform to the logic of the context in which they are placed. The inevitable result, Sorel believed, was co-option, and he began to cast around for a conception of change in which the political party played no role.

A number of linked considerations brought about Sorel's change of

heart. For one thing, he was to abandon the notion of a universal ethic, transcending class division, as the moral inspiration of the socialist movement. He was to emphasize instead the uniqueness of the moral experiences and symbols from which different groups and movements drew their force. The socialist order was to be built upon the co-operation and seriousness essential to industrial production, upon the 'good practices' of the factory, not upon some doctrine of 'Truth, Justice, and Morality' which forms the common ground of competing classes. It is for these later views, which made him an exponent of ethical 'polyarchy' and a critic of Natural Law, that Sorel is much better known.[58] They were to lead him, in his most widely read works, to his rejection of politics and to his demand that the working class, as the bearer of a distinctive ethic utterly opposed to that of bourgeois life, should separate itself and choose a mode of action which made accommodation and compromise impossible.

A second motive was provided by a rekindled contempt for the Third Republic, temporarily set aside during the 1890s, when the socialist parties seemed to offer some hope of reforming it from within. Even during those years, Sorel, though accepting the value of conventional political action, was more interested in the movement than in the party, in the network of working-class institutions; the role of the party was to protect and promote it. But the strategies undertaken by the party, Sorel came to think, so falsified the values affirmed by the movement that it threatened to eliminate the hope of socialism altogether. Socialism was to be a decentralized order in which political authority had been dispensed with; but to be politically effective, the socialist party had to adopt a centralized mode of action, sacrificing local interests and reinforcing the structure of political authority itself. Transferring his conservative sentiments to the socialist movement and viewing socialism as an updated version, as it were, of a system of communal and provincial liberties, Sorel could not remain satisfied for long with political practices that conformed so easily to the logic and to the ethos of Paris. The most that parliamentary socialism could secure, Sorel thought, was a modification of Republican politics in what was later to be called a corporatist direction; it would produce a system in which social and economic institutions were given political recognition, but only in order to convert them into instruments of consensus.

What crystallized all this for Sorel was the outcome of the Dreyfus affair, an episode which Georges Goriely has called 'the only real event' in

Sorel's life.[59] It is this, above all, that explains the striking difference in tone and style between Sorel's reformist Marxism of the 1890s and the writings of the post-Dreyfus years, which, though related in many ways to his earlier socialist theorizing, recall the works of his conservative phase in their hostility to Republican politics. To begin with, Sorel believed that the triumph of the *dreyfusards* completed the ruin of traditional France.* There was something to be said after all, Sorel decided, for the old-style politicians; the existence of an 'aristocracy' of professionals had made possible a 'passable' system of parliamentary rule in France, as it did in England; but the Dreyfus affair brought into power a new class of scoundrels with no saving grace at all, men who resembled the outrageous opportunists who had surrounded Napoleon III. The affair brought about a kind of 'revolution'; and like the great Revolution of 1789, it posed more acutely than ever the need for developing a new associational order, returning Sorel to his most fundamental and permanent concerns.

In the Dreyfus affair, as Sorel came to think, a moral impetus had been deflected to political ends. He had valued the *dreyfusard* movement, as we have seen, for the moral claims it had asserted: but the outcome of it all was the installation of the Waldeck-Rousseau ministry, in whose policies Sorel could see nothing but crass expediency. Once in power, it took steps against its opponents which, Sorel thought, were quite as disreputable as the army's treatment of Dreyfus had been. This contrast between expectation and outcome brought into play once more the dualisms typical of Sorel's thinking: the dualisms of will and history, intention and meaning, action and process. The *dreyfusard* movement had appealed to Sorel as an instance of revolutionary *action,* as a moment in the evolution of the insurgent group; but its deflection recalled him forcibly to considerations of *process.* In his bitter pamphlet on the affair, entitled *La Révolution dreyfusienne,* Sorel lays heavy stress on the objective and involuntary character of decisive changes, making it clear that we cannot consider revolutions as *action* for the compelling reason that the outcome (by virtue of which the event *is* a revolution) may not correspond at all to the intentions of the participants. The historian who deals with political cataclysms, he wrote, 'must not try to explain them by the genius of those men who are credited, by popular opinion, with the glory of changing the course of events; there is, indeed, an evident, enormous, and, one is tempted to say,

* See 'On the Course of Revolution' below.

scandalous disproportion between the intellectual and moral calibre of the revolutionaries and the results which emerge in the course of time.' He quotes a comment of Renan's on the French revolutionaries which throws into sharp relief the contrast between the action model and the process model: 'These were not great men, but the labourers of a great hour.' Concern with the 'men,' therefore, with the intentionality of action, could not reveal the meaning of revolution, for what the 'men' produce is contained and modified by the 'hour' of their action. One is reminded of Karl Liebknecht's comment on the failure of the Spartakist rising – 'The period did not rebel.'

But what now made this stress on the force of circumstances intolerable was that the very attempt to come to terms with it had only intensified the problem. It was political action that was meant to serve as a mediating link between movement and situation; it was through its party, and through coalition with other forces of the Left, that the movement, engaged in its own slow internal development of consciousness and organization, was to be protected from a hostile environment. The party, in short, was to serve as the institutional linkage between the two dimensions of change which Sorel had distinguished, the action of the insurgent group and the process of events which contained it; rooted in a movement which embodies and affirms the principles which are eventually to triumph, the party, as a political agency, is to manipulate the 'mechanisms' of change so as to advance the external position of the movement step by step. But all this had come to nothing, or, rather, what it had come to was the triumph of a Radical clique bent on its own ends and the defusing of socialist militancy. And the *arriviste* socialist politicians were no better.

In this way Sorel was led to his systematically ambivalent view of institutions. They were, from one point of view, independent centres of belief and action, constituted by distinctive symbols and styles of association: but at the same time they were submerged within the circumstances which surrounded them. From the standpoint of action, the workers' institutions were to be seen as composing an autonomous world embodying the distinctive ethic which was to form the basis of a Producers' civilization. But from an historical point of view, institutions were not autonomous; they were inextricably involved with a complex social development, and could be separated from it only conceptually, by means of what Sorel called *diremption.*[60] A *diremption* – perhaps best translated as 'abstrac-

ion' – is performed when one set of interactions is isolated from the whole n order that their development may be examined over time. This proce-dure is valuable, Sorel wrote, for revealing the distinctiveness of institu-ions; but once this abstraction has been performed, the pattern or devel-opment which has been traced cannot be re-inserted into the whole. The eason for this – though Sorel does not elaborate – is clear: the develop-ment of institutions is persistently affected by their interaction with the so-cial environment, and having ignored this in order to grasp their internal coherence one cannot replace the construction in the surrounding pro-cess without falsifying the relationship between the two. We can under-stand the agents of history by abstracting them from the surrounding pro-cess, or we can analyse the outcomes of history by dissolving the agents n the totality of events. But there is a logical gap between these two forms of knowledge, for one posits as real what the other discounts. It was this gap between action and outcome, or between subjective and objective meaning, that a revolutionary theory had somehow to overcome. Neither component could be dispensed with, for a revolution in the full sense of he word could be brought about only by a movement strongly committed o its distinctiveness, in a context of change which was beyond its own control. Yet it seemed that a group which simply affirmed its distinctive val-ues was doomed to be surpassed by events, while organizations which sought to control and manipulate the political context were obliged to adapt to it to such an extent that what was of value in them was lost.

The problem Sorel confronted in the post-Dreyfus years was certainly no new one. Something rather similar may be found in Machiavelli's dis-cussion of the problem of restoring a corrupt republic to health. It will be exceedingly difficult,' Machiavelli wrote, 'that a good man should be found willing to employ wicked means to become prince, even though his final object be good; or that a bad man, having become prince, should be willing to labour for good ends, or that it should enter his mind to use for good purposes that authority he has acquired by evil means.'[61] Sorel's di-lemma was not posed exactly by the opposition between 'good' men and bad '; but, like Machiavelli, he was struck by the non-identity of the agents appropriate for winning power and the agents appropriate for using it. The two criteria of appropriateness – the correspondence of action to the pro-posed goal, and its effectiveness in reaching it – fail to coincide, yet both must be taken into account. Sorel had already formulated such a distinc-

tion in an 1899 lecture on the ethics of socialism. Phenomena must be examined, he said, 'from two distinct points of view'; one must examine the 'outside,' the location of phenomena in the sequence of events and the ensemble of social institutions, and also the 'inside,' the moral and intentional aspects of actions, the ethic they express or imply. From this latter standpoint, which represents Sorel's Proudhonian correction of Marx, we must abstract from the historical plane, or the plane of reflection on the prospects of success: 'All questions of quantity are superfluous here: intention does not measure itself; it retains its quality, however minimal its effects may be ... The socialist intention may be perfect in the construction of a small association of working men.' But of course it remained true that these intentions entered into the general societal and historical process, which assigned to them consequences and significances not included in the intentions themselves, and hence the view from the 'outside' was equally essential: though 'distinct,' the two standpoints, Sorel declared, 'can never be separated.'[62]

When he wrote these words, before the outcome of the Dreyfus affair had finally convinced him of the futility of all politics, Sorel was only drawing attention to a familiar though important problem of political action in general. If there is a distant link with Machiavelli, there is a strong echo of Max Weber's distinction between the ethics of 'ultimate ends' and 'responsibility,' or between expressive and instrumental action.[63] We may detect an anticipation, too, of the questions revolved by later French theorists of the problematic character of politics, such as Mounier and Aron, and, indeed, of the evolution of Sartre's perpetually anguished 'commitment'; for what was central to Sartre's complex relationship to the Communist Party was that, while he saw the party as the only possible *instrument* of change, he had the profoundest doubts about its internal or intrinsic character as an embodiment of socialism.[64] For Sorel, however, this distinction between the instrumental and intrinsic value of institutions was to have a more radical significance. In the years after 1900, he did not see it merely as creating difficulties for political action, but as demonstrating the impossibility of the political party as a socialist agency. For it is fundamental to the very notion of a political party that it should make two claims. It must claim to be an effective instrument of political struggle and it must claim to be an appropriate instrument for wielding power after the struggle has been won. Sorel came to think that no institution could make

oth claims and that these two roles were so 'distinct' as to be incom-atible.

Reflections on Violence and the other writings of Sorel's syndicalist pe-od are unintelligible unless this logic is taken into account. For what is ffered by them is a new account of the relation between action and its ontext, a relation which is fundamentally non-political in nature.* The day f the *political* revolution, Sorel claimed, was over. The model which Sorel ame to adopt in constructing a new linkage was that of the economic narket, in which outcomes are an *incidental* outcome of action. Political ction, which involves the deliberate use of power, requires one to pin ne's hopes to some agency which promises to use power well; Sorel be-eved no such promises. Instead, he turned to revolutionary syndicalism, a novement which was vigorously and uncompromisingly hostile to the *tatus quo,* which fiercely affirmed the values of socialism, but – or so it eemed to Sorel – would bring into play a chain of effects leading to the chievement of socialism.

Because Sorel emphasizes so strongly the affirmative, expressive, and on-calculating character of the syndicalists' militancy, it has often been nought that he valued syndicalism merely as an expression or 'gesture.' It as often been claimed that he was 'careless of the consequences,' or nat he regarded action itself as something of regenerative value. Sorel as, in fact, been assimilated to the hypothetical syndicalist whom Weber appened to propose as an exponent of belief in 'ultimate ends,' whose ole concern was to keep 'the flame of commitment burning' without re-ard to the outcomes of action.[65] This line of interpretation overlooks ome crucial features of Sorel's argument. It is precisely the forms of so-ialist strategy that Sorel *rejects* that, in his view, 'leave the future com-letely indeterminate';[66] he welcomes revolutionary syndicalism because it ppears to promise a *more* determinate future, and a good deal of *Reflections on Violence* is taken up with explaining why its consequences vill be better than those of parliamentary socialism. His point is certainly ot that consequences do not matter, but that the syndicalists themselves lo not, and need not, grasp the full consequences of what they are doing - just as, in an economic market, actors produce by their action cumula-ve and long-term consequences which escape their intention and their ontrol. 'The power and wealth of the bourgeoisie was founded on the au-

* See 'On the Barbarism of Revolution' below.

tonomy of the entrepreneur; why should the revolutionary force of the proletariat not be founded on the autonomy of working-class revolt?' With only a very partial justification, Sorel claimed that such an economic model corresponded to the inner spirit of Marxism: Marxism, he wrote, 'is much closer to what is called "Manchester economics" than to Utopianism.'[67]

What opens Sorel to misreading, enabling his critics to dismiss him as a mere aesthete of action, is the division of labour he establishes between militant and observer. The militant himself is, indeed, freed by Sorel from the need to calculate outcomes in a responsible and prudent way; the militant in *Reflections on Violence* does correspond to the figure of the syndicalist sketched by Weber in 'Politics as a Vocation.' Sorel, however, did not write as a militant, but as a theorist confronted by militancy; and in addition to the violence of the militant, there is the reflection of the theorist, whose role, as in economics – and, it has been argued, in the modern social sciences generally[68] – is to trace the unintended consequences of action. His task, as Sorel had written in 1902, was to formulate 'rules of prudence' by which proposed courses of action could be evaluated. Sorel no longer had in mind an institutional linkage between expressive militant and prudent theorist of the kind provided by the socialist party. But the prudential rules retained a role all the same, for they served as the criterion by which action was to be declared valuable or worthless. Revolutionary syndicalism, Sorel believed, was valuable; it would foster solidarity among workers, render the politicians helpless, and – a point to which Sorel attached great importance – it would stimulate production by making the capitalist class more ruthless and aggressive. Because of this, socialism would become a more attractive option to the intermediate classes, whose fear of socialism, Sorel thought, varied directly with their deprivation. Furthermore, the technological advances capitalist vigour was to bring about would provide the technical basis necessary for socialist society. One may well criticize all this as fanciful and optimistic; but these are not the views of a man who was 'careless of the consequences.'

The great merit of revolutionary syndicalism, then, was that it seemed to provide a concrete solution to the logical dilemma with which Sorel had confronted himself: that of the incompatibility of the practical and reflective perspectives. The militants *acted,* and the theorist *knew* – within the limits of all knowledge of society, which cannot be fully certain – that

heir action was to be beneficial. Nor did this coincidence of concerns involve any relation of subordination or any political direction of the movement by 'intellectuals' of the kind which (Sorel thought) would be so fateful. It was a strategy of change which did not involve creating any specialized instruments for bringing change about; and this, in Sorel's view, was all to the good, for such instruments – rather like the governing group' in Rousseau's republic – always develop an interest and a dynamic of their own which separates them from their constituency. Change was to be produced in a non-hierarchical manner which allowed scope for the exercise of local initiative; and this was essential, if the outcome of it was to be a decentralized form of social organization, as Sorel viewed socialism.

This manner of proceeding was, to use Sorel's ironically intended term, a 'barbarous' one, and his use of this word bears some examination. In one sense too much has been seen in Sorel's provocative use of this description, and in another sense too little. It was 'according to certain "intellectuals," ' Sorel wrote when he first used the word, that syndicalism deserved to be called 'barbarous,' and his own use of the term may be seen as a kind of defiant joke.[69] He also says, it should be noted, that syndicalism is to 'save the world from barbarism,' and so it is altogether inadequate to say that he was 'blinded by a vision of virile proletarian barbarians.'[70] On the other hand, to describe the syndicalists as barbarians was to make, allusively, a serious point, for Sorel had a long-standing interest in the processes which brought about the end of classical civilization. He did not think that the barbarians destroyed Rome; he thought it had been destroyed already, partly by Christianity and partly by internal processes of decline. The barbarians figured in Sorel's historical scheme not as destroyers but as the bearers of a new juridical order. In the manner of the 'Germanist' school, he saw the barbarian peoples as the source of distinctive legal principles which owed nothing to Roman Law and which were to provide the basis for a new civilization.[71] Naturally the barbarians had *élan,* too, but this is not what is stressed by Sorel. He stresses the new forms of order and discipline which they brought to replace the vanishing Roman order. So little did Sorel value them for their crude *élan* that he ascribes curiously Roman values to them, crediting them with re-establishing *les vertus quiritaires.*[72]

The syndicalist 'barbarians,' correspondingly, are presented by Sorel as

the bearers of a new civilization, not as the virile destroyers of the old – as in the case of Rome, Sorel believed, there was little left to destroy. Their organizations embody principles of co-operation and solidarity which have already been given practical articulation and which spring from experience, not from a written code. They are presented, like the original barbarians, as sternly disciplined figures, bearers of a new *civisme,* though it is a *civisme* in which industry, not politics or conquest, is to form the focus of association.[73]

It is very tempting to see parallels between Sorel and Vico here, for Sorel's implicit analogy between the fall of Rome and the syndicalist revolution invites comparison with the cycle of *corso* and *ricorso* proposed by Vico. A civilization, according to Vico, runs its 'course,' and must then be renewed by a 'return' to primitive levels of consciousness and experience. Sorel was, indeed, very favourably impressed by Vico and used his theories more than once in support of his own conception of change. But the parallels, though interesting, are not very precise. For the whole point of Sorel's syndicalist theory – and this is, indeed, a major theme throughout his various socialist phases – is that we cannot predict the emergence of *corso* from *ricorso* in the deterministic manner of Vico. We cannot suppose that new forms of association will develop spontaneously out of a period of destruction and change; it is precisely for this reason that the new forms of organization must be developed before revolution occurs. Whatever analogies we may seek between Sorel and Vico, we will not find them in Sorel's theory of revolution. For Sorel's revolution is not a *ricorso,* or an irruption of primitive and imaginative consciousness into a decaying order, but a process by which one *developed* civilization replaces another.

Far from calling for a new *ricorso,* as several commentators have suggested, Sorel often referred to *ricorsi* as 'dreadful events,' and he explains in unmistakable terms that they are at all costs to be avoided.[74] Certainly he admired the vigour of proletarian movements, contrasting it favourably with the 'decadence' of the bourgeois regime. But he valued it only as the promise of a new order and thought that it was of social value only when it had developed and matured sufficiently. For unless we have the mature expression of a movement 'before our eyes,' we cannot assess its historical meaning or be confident of its historical value; we risk a new Dark Age.

Vico's failure to realize that there could be several orders at once, in different stages of development, within a single society was (Sorel thought) a

major weakness in his historical scheme. History is not composed of homogeneous *blocs*, Sorel objected, but of 'a tangle of evolutions.'[75] Moreover, Sorel did not see the differences between such orders only, or even primarily, as a difference of developmental stage. It was not merely as a new and hence more 'virile' movement that he valued socialism, but as a movement bearing a qualitatively *different* set of juridical principles. If Vico detected a Law of Nature beneath the diverse phases and systems of history, Sorel believed rather in the diversity of juridical principles, which, he thought, emerged not from a single source in human nature but from various different concrete situations and experiences. 'As opposed to the economy which forms a continuum,' Sorel wrote, 'law has a divisive function.' In the course of history, successive civilizations are distinguished above all by their juridical systems, which contain the fundamental models of association upon which society is built. Two contemporaneous classes can have two distinct legal systems *(droits)* 'and thus form what are called two *orders*.'[76]

The revolutionary syndicalist strategy of change – as Sorel conceived of it – accommodated both 'economic' and 'legal' considerations, the principles of both historical continuity and juridical discontinuity. Like all movements, syndicalism was not independent of its environment but subject to a logic of development beyond its own control; hence the need for an 'economic' model which placed relations and outcomes in a determinate framework and made them, to a degree, predictable. But at the same time, what was valuable in the movement was its distinctiveness as an organization embodying new juridical principles, and what was crucially important was that it should not compromise them. Sorel, as we have seen, sometimes used the word 'barbarism' in a pejorative sense, declaring that syndicalism was to 'save the world' from it; when he did so, the barbarism he had in mind was that of the Merovingian period, a phase of decline and corruption which was due, Sorel argued, to the barbarians' failure to separate themselves decisively enough from Roman culture. Learning a pastiche classicism from the Romans whom they had conquered, they lost what was vital and promising in their own system of organization.[77] The syndicalist barbarians, however, were to rebuff the suggestions of the peacemakers and the eclectics, to affirm what was their own, and to leave the outcome of their action to the force of circumstances – circumstances which, for a few years, seemed propitious.

To conclude, what is essential to this view of things is the rejection of a concept fundamental to the belief in political parties, that of *instrumentality*. A party is justified as an instrument by which certain determinate ends are to be deliberately brought about. Orthodox socialists tell us, Sorel complained, that '*the party* aspires to the realization of communism, and avoid giving any explanation of this obscure formula.'[78] The 'obscurity' of the formula derived, once again, from a confusion of two distinct historical perspectives. Retrospectively, we may identify groups as instruments or 'bearers' or 'vehicles' of a future, for we can determine the significance of action in the light of outcomes which we know. But to regard a contemporary group in this light is to suppose that we can know what we cannot; only by hindsight can we ascribe privilege. To forget this, to allot to a group acting in the present a uniquely creative role, is quite wrongly to transfer to a future which in fact is open the qualities of unity and necessity which the past seems to bear. The formulas offered by subsequent socialists, one may note, are no less open to the charge of obscurity from a Sorelian perspective. The party is held to be 'an expression of collective will' (Gramsci), 'the instrument whereby power is transferred to the people' (Gorz), 'the movement which unites the workers by preparing them to take power' (Sartre). Such definitions, functional through and through, commit the mistake of including ends in the very nature of an empirical thing, as though its history were written already.

Plato – and, after him, a long line of political philosophers – made extensive use of such functional thinking, explaining moral and political matters in the light of supposed analogies with such things as musical instruments and ships. Human artefacts are, of course, capable of definition in functional terms, for they are made with a view to achieving ends. But the extension of such a mode of thought to human action is just what is in question, for a course of action lacks that *made* quality which justifies functional definition in the case of artefacts. To define a political agency, such as a party, in instrumental terms is to suppose, wrongly, that the same relation obtains between an institution and its meaning as between an instrument and its use. The Sorelian alternative to this illusion is to make revolution the incidental outcome, as it were, of socialist action, as opposed to the political focus of socialist organization. To be sure, this introduces an alarming degree of coincidence into the revolutionary model. It may simply happen that the practices of syndicalist militants will, by their

cumulative impact, bring about a socialist order, and, there again, it simply may not. (They did not.) This acceptance of mere chance may well seem intolerable in a theory of change. But here there is a point to be made in Sorel's defence. To suppose that chance can be eliminated is to suppose that there can be a perfect actor, like Plato's Philosopher-King, which will at once (*qua* philosopher) know the ends to be pursued and (*qua* king) effectively deploy the means necessary to bring them about. But the emergence of such a being, as Plato confessed, rests upon a 'divine chance'; and if chance is eliminated at one point, in the relation between action and outcome, it is necessarily reintroduced at another, that is, in the emergence of a perfect actor who will bring about what he intends.

The social myth and Bergsonism

Perhaps the feature of Sorel's revolutionary syndicalist thought that has attracted most attention – and earned its author more notoriety than anything else he proposed – is the doctrine of 'social myths.' All great movements, Sorel states, are produced by the convinced belief in myths; and the socialist movement is to become a powerful and worthwhile one only on condition that it accepts and is guided by 'the myth of the general strike,' a belief that the strike movement will accelerate and extend to such a pitch that the collapse of capitalism will be brought about. What should be stressed in the first instance is an obvious enough but centrally important point; that the myth of the general strike is a belief. The unity of the socialist movement, in Sorel's view, was to be achieved at the level of consciousness alone. At least part of his admiration for the myth lay in the fact that he had, for various and complex reasons, rejected the notion of either centralized organization or political representation as a means of producing unity in the workers' movement; and the only alternative was what Proudhon had termed 'a profound unity of consciousness alone,'[79] a unity which could be produced by the acceptance, throughout the diverse and separate organizations within the movement, of a single image powerful and specific enough to provoke common action. It should not be overlooked, then, contrary to those critics who wish to assimilate Sorel's thinking to that of Pareto and Mosca, that what is perhaps the single most

important construct of Sorel's was developed precisely as a means of eliminating élitism of any kind.[80]

On the other hand, it would be equally mistaken to suppose that the syndicalist movement, in Sorel's view, rests *only* on belief, that it is an instance of the kind of collective delusion analysed by Gustave LeBon (a thinker whom Sorel admired).[81] A clear distinction needs to be made between 'crowd' or 'mass' and 'class.' It is the crowd or mass to which demagogic (that is, political) socialism appeals; it separates men from their real conditions of life and, exploiting their diminished sense of reality, animates and mobilizes them by empty gestures and words. Syndicalism, on the contrary, is a class movement. Unlike demagoguery it appeals to men as producers. It does not bemuse the workers by introducing extravagant issues 'foreign to the industrial system.' Its doctrines are frank and non-manipulative. Its programs and hopes are closely linked to 'the incidents of daily life,' not to vague images.[82] Quite as much as in earlier writings such as 'L'Avenir socialiste des syndicats,' Sorel stresses in *Reflections* the crucial value of the organizations and institutions of the workers. The revolution is to be the work of men who have developed the 'capacity' to manage their own institutions and those of the future order. Much in the manner of Proudhon,[83] Sorel distinguishes between appeals which are made to men as mere voters, or as audiences, faceless masses called upon to decide things beyond their own range of competence, and appeals directed to men within the context of their real lives. Sorel's 'myth,' like Proudhon's 'Idea,' serves to give unity and direction to a movement already articulated in local institutions. It adds a further dimension, more global in character, to the workers' 'normal occupations,' without detaching them from the factory and making them vulnerable to the psychological dynamics of 'crowd' situations.

In part, this consideration explains the 'mythical' character of the belief, for if a high degree of importance is attached to the co-ordinating function of beliefs, their truth-content is correspondingly less significant. But the most fundamental reason for declaring belief in revolution to be 'mythical' is to be found in Sorel's methodological critique of Marx and, in particular, in the element of circularity which Sorel thought he detected in Marxian doctrine. Marx had projected the downfall of capitalism; but at least part of the reason for the projected downfall of capitalism was the existence of the socialist alternative itself; to justify the socialist alternative by the immi-

that the management of these buildings should be entrusted to a local group than to a large federation.

The great advantage of national federations lies in the opportunities for mobility that they can provide. Pelloutier realized that if one could establish an employment service, secure jobs for men in other localities, and provide the unemployed with the means to travel, the future of the *bourses* would be completely assured. He had begun to work on this crucial problem, which his successor hopes to complete successfully.

It appears that municipalities would have much to gain from administering unemployment relief through the medium of the *bourses*. One of the great difficulties they face is that of determining whether an unemployed man should be sent to some other district nearby or far away, whether he should be set to work on a job closely or less closely related to his skill, or whether he should receive financial help. Municipal offices can never satisfactorily resolve such questions, which involve so many technical details, and their decisions always seem arbitrary to the workers; but workers would willingly abide by the decisions of a board composed of working men. There is another matter of great practical importance that I should like to mention here. It is significant that, as in the Middle Ages, towns undertake improvements which call for superior workmanship. Maintaining a good quality of work is, in my view, of crucial importance for the future of the working class;[41] it would therefore be very appropriate for towns to devote a good part of their unemployment fund to commissioning skilful and experienced workers to carry out projects of aesthetic value. It is clear that this could not be done except under the direction of the workers themselves.

Experience shows that popular education – artistic, scientific, and literary – could usefully be undertaken by the *bourses*. In a thorough study of the *Universités populaires*, Charles Guieyesse concludes that they cannot succeed unless the instructors refrain from setting themselves up as masters; they must be responsive to their audience in dealing with subjects which the latter recognize as useful: 'The institutions set up by the *bourses* and by the trade unions, which are untouched by political authoritarianism, are the best.'[42]

Such teaching has so distant a relation to party interests that one can find men of good will everywhere who can undertake it effectively. But the university and the Church compete with one another in turning historical

and philosophical questions into matters of propaganda; and many socialists have viewed with alarm the intervention of university professors into the field of popular education. At the congress of the *bourses* in Paris in 1900, it was even suggested that it would be worthwhile to set up a system of primary education for trade unionists' children, so that they should be preserved from the influence of the official 'civics' textbooks.[43]

At the same congress it was decided to establish continuing relationships between the *bourses* and young workers drafted into the army. The Dreyfus affair drove the army almost berserk; elated by the signs of admiration displayed by respectable people, the officers have become so ridiculous that it is an easy matter to show the soldiers the true value of civic education. Now that the workers have *learned to see* and have recognized the unworthy and often unsavoury reality behind the masks which were venerated until recently, military service ceases to be a school of obedience and is becoming a school of revolt; and the revolt will be against the ruling class as a whole. Nothing could have more influence on socialist propaganda than the education of soldiers by the *bourses*; revolutionaries will find ample scope for their initiative there.

But whatever field of activity is considered, it will readily be understood that in almost all our urban centres the *bourses* can easily become the administrative core of the *workers' commune* which is forming, and can direct 'the work of moral, administrative, and technical education which is necessary to ensure the success of a society of free men.'[44]

*On the barbarism of revolution**

... We are no longer confronted by phenomena belonging to the classical categories, phenomena which any serious worker can expect to observe correctly, define precisely, and explain satisfactorily, by applying accepted scientific principles. Principles are totally absent; as a result, it is impossible to arrive at a clear and accurate picture. Sometimes we must even accept some imprecision in our language, for too much precision would not match the fluid character of reality, and language would thus deceive us.

* This is translated from the preface added by Sorel to his *Avenir socialiste des syndicats* (1898) when this work was republished in *Matériaux d'une théorie du prolétariat* (Paris 1919); it had been published separately in *Mouvement Socialiste* (1905).

We must proceed tentatively, trying out limited, plausible hypotheses, and making do with provisional generalizations, in such a way as to allow for progressive corrections. Such comparative powerlessness is bound to seem feeble to the *grands seigneurs* of sociology, who tirelessly fabricate vast syntheses in which pseudo-history links hands with a chimerical future; but socialism is more modest than sociology . . .

The time is perhaps not far off when we will find that socialism can best be defined in terms of the general strike; and then it will emerge clearly that any socialist analysis must bear on the direction and character of the syndicalist movement. There are three principal elements in the thesis of the general strike which should be stressed.

1 / Above all, it shows quite clearly that *the day of the politician's revolution is over* and that the proletariat refuses to impose new hierarchies upon itself. The general strike omits all reference to the rights of man, absolute justice, political constitutions, and parliaments; it denies not only bourgeois-capitalist government but any hierarchy at all reminiscent of the bourgeois hierarchy. Advocates of the general strike turn their backs on the preoccupations of the liberals of the past; the tribunes' oratory, the moulding of public opinion, the coalition of political parties. This is a world turned upside down indeed; but has not socialism the declared intention of bringing a totally new order into being? More than one socialist writer, not yet weaned from bourgeois tradition, has failed to understand such *anarchistic folly*; they ask themselves what would follow the general strike, but there is only one possibility, a society organized on the basis of production itself, that is, the true socialist society.

2 / Kautsky tells us that capitalism cannot be done away with bit by bit and that socialism cannot be realized piecemeal. This thesis is incomprehensible in the context of parliamentary socialism; when a party enters a deliberative assembly, it does so with a view to extracting concessions from its adversaries, and experience shows that it can indeed do so. All democratic politics is evolutionary, even though very often one is not obliged to disown outright the principle of class struggle. The general strike is a way of giving concrete expression to Kautsky's thesis; and to date no other formula has been offered to fill this role.

3 / The general strike is by no means the product of profound reflections on the philosophy of history; it has arisen out of practice.

Strikes would be no more than simply economic events of negligible social significance if revolutionaries did not intervene, changing their character and making them episodes in the social struggle. Each strike, however local, is a skirmish in the great battle known as the general strike. The association of ideas here is so simple that one has only to point it out to striking workers in order to make them socialists. Today, maintaining the notion of class war seems all the more necessary now that so many efforts are being made to substitute social peace for socialism.

Bourgeois writers, accustomed to classifying philosophical and religious schools in terms of a few summary formulas, attach great importance to the axioms which serve as preambles to socialist programs. Often they believe that in criticizing such obscure affirmations and in showing that they are devoid of meaning, they spirit socialism away. Experience shows that this method leads to nothing and that socialism exists independently of the sham principles laid down by official theorists. I would be tempted to compare these people with theologians; a Catholic scholar, Édouard Le Roy, questions whether the dogmas of his faith provide us with any concrete understanding of it at all;[1] they have been promulgated *ad hoc* in the context of specific heresies, and it seems that a good deal more clarity would have been achieved if condemnation had taken the form of simple prohibition. Socialist congresses, too, would do well to say simply that they reject certain tendencies which the parties display; if they proceed differently, it is only because their formulas are so vague that all the groups can accept them by making a few tacit reservations.

What is often said is that we must organize the proletariat on the economic and political levels in order to take power, with a view to replacing capitalism with communism or collectivism. This is a wonderfully mysterious formula, which can be read in a variety of ways. Of all the interpretations, the following is the simplest: stimulate the formation of working-class organizations for the purpose of agitating against employers, take the part of striking workers and induce the authorities to intervene on their behalf, get oneself elected deputy with the help of the trade unions,[2] using one's influence to win concessions for working-class constituents and perhaps to find jobs for men who are influential in working-class circles,[3] and finally give voice, from time to time, to sonorous speeches on the charms of future society. This policy is within the grasp of any ambitious man and does

not presuppose any understanding of socialism whatever. It is the policy of Augagnan and of the other deputies who abandoned the socialist party.

My own view is that it is quite out of place to attach any importance at all to any such literature. The official leaders of the socialist party too often resemble landlubbers on the open sea, navigating without knowing how to read a chart, recognize landmarks, or take precautions against storms. While these would-be leaders ponder the wording of new formulas, pile vanity upon vanity, and attempt to impose their thinking on the proletarian movement, they are taken off guard by events foreseen by everyone living outside their intellectual cabals and are stupefied by the smallest parliamentary upset.[4]

Although the official socialist theorists demonstrate their uselessness in this way, more impassioned men, with a profound attachment to liberty, as devoted to the proletariat as they are scornful of scholastic formulas, have drawn from the *practice of strikes* a very clear conception of class struggle; they have given socialism the new direction which it is beginning to take now.[5] Revolutionary syndicalism disturbs notions matured in the tranquillity of the study. In fact, it advances on the spur of the moment, without caring to submit to any dogma; sometimes it commits itself to courses which wise men condemn – a distressing spectacle for those lofty spirits who believe in the sovereignty of Science in the modern world, who expect revolution to arrive through a mighty effort of Thought, and imagine that Ideas run the world when it is emancipated from clerical obscurantism.

Probably many allies are lost through these tactics, which, according to certain *intellectuals*, deserve to be called 'barbarous,' but also a good deal of useful work is accomplished. As experience conclusively shows, the evolution does not know the secret of the future but proceeds in the same manner as capitalism, exploiting every opening that presents itself. Capitalism has not done badly out of what has been called its blindness and folly; if the bourgeoisie had listened to the practical, scientific, and moderate men, it would have been horrified by the chaos wrought by its industrial activity, it would have called in the state to act as moderator, and it would have been mired in conservatism. Marx celebrated the prodigious tasks accomplished without a plan, without a leader, and without guidance: '[The bourgeoisie] has been the first to show what man's activity can bring about. It has accomplished wonders far surpassing Egyptian pyramids, Roman aqueducts, and Gothic cathedrals; it has conducted expeditions that put in the shade all former Exoduses of nations and crusades.'[6]

The bourgeoisie brought about a revolution in a manner contrary to that which the sociologists prescribe for behaviour which is to be effective and productive of major results. Their revolution was based on the transformation of the instruments of production, piecemeal, by means of individual initiative; one might say that it followed a *materialist* method, for it was never moved by considering what steps should be taken to aggrandize a class or a country. Why should the proletariat not follow the same path, without subjecting itself to any sort of ideal plan? The capitalists, in their innovating passion, took no thought at all for the general interests of their class or their country; each of them considered nothing but the greatest possible immediate profit. Why should the trade unions defer to lofty views of the national economy, and why should they not exploit their opportunities to the full while circumstances are favourable to them? The power and wealth of the bourgeoisie was founded on the autonomy of the entrepreneur; why should the revolutionary force of the proletariat not be founded on the autonomy of working-class revolt?

It is indeed in terms of this *materialist* conception, modelled to some extent on the practice of capitalism, that revolutionary syndicalism sees its role. It makes use of class struggle as capitalism made use of competition, driven by a powerful *instinct* to undertake the maximum action permitted by material conditions. Those who pride themselves on their social science and philosophy of history display strong misgivings when faced with such unruly instincts. They wonder, with often comic anxiety, where such barbarism is going to lead; they busy themselves with divining the rules which the proletariat should adopt when the various revolutionary forces combine one with another, organize themselves, and encounter the need for regulatory bodies. There is a great deal of ignorance in the attitudes of the learned.

There is no need for me to remind the compatriots of Vico of what this great man said about the conditions which give rise to *ricorsi*;[7] they take place when the popular mind returns to primitive states, when everything in society is instinctive, creative, and poetic. Vico saw the High Middle Ages as the most persuasive illustration of this thesis. The origins of Christianity, too, would be unintelligible unless one assumed in its inspired disciples a state of mind quite comparable to that of early civilization. Social-

sm cannot claim to remake the world if it does not undergo such a process of formation.

Let us not be surprised, then, to see socialist theories evaporate one after the other, showing themselves to be as weak as the socialist movement is strong. There is nothing but an artificial link between the two. The theories are the product of bourgeois reflection;[8] moreover, they appear to be refinements of ethical and historical philosophies elaborated in a society which long ago reached the most rarefied levels of intellectualism; therefore such theories are old and feeble at birth. Occasionally they acquire the appearance of a reality which is not really theirs, by virtue of coinciding, by chance, with a sentiment current in the workers' movement; they collapse the moment this accidental connection ceases to hold. Revolutionary syndicalism, in contrast, owes nothing to bourgeois thinking, and the future is open before it.

At the present time, revolutionary syndicalism represents what is really true in Marxism, something which is powerfully original and beyond all formulas: the knowledge that the class struggle is the alpha and omega of socialism – not a sociological concept for the use of intellectuals, but the ideological aspect of a social war pursued by the proletariat against the employers' class – and that the trade union is the instrument of social war.

In time, socialism will undergo the evolution dictated by Vico's laws; it will have to raise itself above instinct – and one could say that this process has already begun. The rejuvenated and completed Marxism upheld by Sagardelle and Berth in France, and by courageous Italian writers, most brilliantly by Arturo Labriola, already manifests such a trend. The wisdom and profound intelligence of these young Marxists is strikingly displayed in their refusal to divine the course of history in advance and in their effort to understand things step by step with their development.

I should now like to draw attention, in a very summary fashion, to a few the graver problems presented by revolutionary syndicalism.

1 / We set out from the idea that syndicalism engages in social war; but, one may object, war cannot at the present time be regarded as the normal state of society. It is no more than an interruption, and all reasonable men will bend their efforts to making it more rare and less cruel. Why not introduce diplomacy into the social war, with a view to achieving peace?

There is a great difference between war between states and war between classes. No one aspires any longer to universal empire; each nation

bases its politics on a model of equilibrium. Hence conflicts become extremely limited, and peace can result from mutual concessions. The proletariat, in contrast, intends the total ruin of its adversaries; and when all notions of equilibrium have been destroyed by socialist propaganda, strikes cannot result in real social peace.

When trade unions become very large, they undergo the same process as states; the costs of war become enormous, and the leaders hesitate to engage in such adventures. So often, advocates of social peace have expressed the hope that in becoming powerful the workers' organizations would be *condemned to prudence*. Just as states occasionally resort to tariff wars but usually confine themselves to negotiating commercial treaties, so agreements between the great federations of workers and employers could put an end to the conflicts which continually erupt. Such agreements, like commercial treaties, favour the common prosperity of both parties, though at the expense of certain local interests. In becoming prudent, the huge workers' federations will come to recognize the advantage to themselves of the employers' prosperity and take account of national interests. Thus the proletariat is led into a sphere which is alien to it, becoming the collaborator of capitalism. Social peace seems close indeed to becoming the normal state of things.

Revolutionary syndicalists understand this logic just as well as the peacemakers do, and they reject highly centralized organization. By operating in a decentralized fashion, they are able to sustain strike agitation everywhere. The notion of the *country* was generated and nurtured by long wars; frequent local strikes incessantly revive the idea of socialism among the working class, reinforce feelings of heroism, sacrifice, and solidarity, and keep the hope of revolution perpetually alive.

2 / It has been pointed out that the revolutions of the past were not purely and simply wars, but also served to bring about new juridical systems. What is the tendency of neo-Marxism in this regard?

I have already said that the formulas offered by the official theoreticians of socialism are scarcely satisfactory; but if one begins from syndicalist principles, one is quite naturally led to see the whole of society in its economic aspect. Everything must proceed on the model of a factory running in an orderly manner, without capriciousness or waste of time.

If the aim of socialism is to transfer the regime of the factory to society as a whole, one can scarcely exaggerate the importance of the progress

hat is taking place in work discipline, in the organization of collective effort, and in the efficiency of technical direction. The *good practices* of he factory are clearly the source of the justice of the future. Socialism will nherit not only the apparatus evolved by capitalism and the science cre-ated by technical progress, but also the co-operative procedures devel-oped in the factories, over a long period, for making the best possible use of time and of human effort and capacity.

Hence I maintain that one must regard it as unfortunate in the extreme hat the workers are sometimes advised to sabotage work. Sabotage is a practice deriving from the *ancien régime* and does nothing to set the work-ers on the path of emancipation. There are many such regrettable surviv-als in the popular mind, and it is the mission of socialism to eliminate hem.[9]

3 / It is clear that the relations among men in society cannot be founded exclusively on the principle of war. In our democratic society, especially, nfinite complexity rules out the possibility of sustaining a state of war in every sphere. Let us examine briefly the major areas in which the trend is owards integration.

i / In speaking of 'democracy,' one should attend less to political constitutions than to the state of the mass of the people: the growth of newspapers, the intensity of public interest in events, and the influence of public opinion on governments – that, it seems to me, is what needs to be taken into account. Everything else is secondary or merely instrumental to this organization of the general will. Experience shows that the working class is by no means backward in taking a stand on issues which do not touch their class interests at all – laws relating to civil liberties, campaigns mounted by various organizations against abuses, foreign policy, anticlericalism, and so forth. Hence it has become possible to maintain that democracy effaces class distinction. More than once, socialist party leaders have tried to confine the proletariat to magnificent isolation, but the rank and file have not followed the leaders for long. The most learned pronouncement on the worker's duty becomes a dead letter when emotion is too strong for it. The Dreyfus affair is so recent that one need not labour the point.

ii / Parliaments are endlessly making laws for the protection of the workers; socialists bend their efforts to inducing the courts to reach

judgments which are favourable to the workers' cause; every day the socialist press tries to win over bourgeois opinion by appealing to feelings of benevolence, humanity, and solidarity – in other words, to bourgeois morality. A great deal of scorn has been poured on the utopians of the past who looked to the good will and enlightenment of the more educated capitalists as the key to social reform; but it seems that contemporary socialism is slipping back into this old habit of soliciting the patronage of a class which – according to its theory – should be its mortal enemy. The radicals, too, energetically pursue social legislation in the hope of eliminating certain extreme conditions which seem to them to be the only *raison d'être* of socialism. The social Catholics tread the same path in imploring the rich to fulfil their 'social duty.'

Socialists have not yet fully taken the measure of such policies.[10] There seems little doubt that they will result in the development of a petit-bourgeois consciousness among many of those men who have won the confidence of their comrades and attained positions of leadership.

iii / The modern proletariat is starved of education. The Church once imagined that it could win great influence over its mind through the schools; in France, the state now bitterly contests its control of its working-class clientele. One can glean only the vaguest idea of the ideological influence of the bourgeoisie from the educational statistics; it is through books above all, that the proletariat is brought under the sway of an alien ideology. The dearth of good socialist literature has often been deplored; in France, at any rate, such literature is pathetically weak. The major socialist newspapers are in the hands of bourgeois who talk nonsense on all manner of subjects of which they are quite ignorant.

When one ponders these facts, one may conclude that the class fusion dreamed of by the Social Catholics and Radicals is perhaps not so chimerical as one might suppose at first sight. It is not impossible that socialism could be liquidated by the reinforcement of democracy if revolutionary syndicalism were not there to throw its weight against social peace. In France, our recent experience of governments anxious to hand out generous concessions to the proletariat does not incline one to think that such efforts, however skilful and persistent, can overcome the obstacles which the syndicalists place in the way of social peace. As democracy has won ground, the syndicalists have intensified their struggle, and it seems to me

at the most persuasive conclusion to be drawn is that *the instinct of mbat is reinforced in direct proportion to the concessions made by the urgeoisie with a view to securing peace* ...

*n the course of revolution**

'The Revolution,' declared [Renan],[1] 'must not be judged by the same es as the ordinary situations of humanity. Considered apart from its eat and fatal significance, the Revolution is no more than vile and horrif- ng. On the surface, it is an orgy which defies description. In its strange mbat, men are of value in proportion to their vices. It made use of every- ng except good sense and moderation. Madmen, incompetents, and vil- ns flocked to it, grasping instinctively that their moment had come. The volutionary risings seem to have won success through a combination of crimes and all insanities. The wretch who knew only how to kill had his oment. The prostitute, the madwoman from the asylum had their uses. e times needed the reckless and the vicious; and their needs were am- y met.

'Its work was as unconscious as that of a cyclone which blindly carries way everything that comes within its range. Reason and Justice are of lit- moment for the mighty whirlwind ... That is why the men of the Revolu- n have been judged in such contradictory ways. Those who carried out s giant's task are, in themselves, pygmies ...: Your Camille Desmoulins he really amounts to very little – a straw blown by the wind, a madcap, 'urchin of genius' as you call him, a buffoon dragged along by the dizzy ur ... these events lent men genius for a year, or for three months. Then, andoned by the spirit which had borne them up for a time, these tempo- y heros fell, maddened, haggard, benumbed, incapable of returning to . Napoleon followed the right course in turning them into clerks and un- rlings.

The worst enemies of the great men of the Revolution, therefore, are se who, wishing to do them honour, classify them as great men in the rmal sense. They were sublimely ignorant, to be pardoned by virtue of ir youth, their inexperience, their faith. I do not want nobility to be be-

This is translated from the introduction and first chapter of *La Révolution dreyfusienne* (first published 1909, 2nd edition, Paris 1911).

stowed upon them ... above all, I do not want statues erected to them. What a mistake! What a lack of discrimination! These were not great men, but the labourers of a great hour. They must not be presented for our admiration; those who imitated them would be scoundrels.

'Centenaries provoke apotheosis; it is too much. Or else solemn forgiveness, with panegyrics; no better. I should be better pleased if they were embalmed, bound, so that they could not rise again ... The Revolution should remain an attack of *divine madness*, as the ancients said.

'When one looks at the whole – especially when one takes account of a great constant in human affairs, the power of victory to justify so many mad endeavours – then the Revolution stands as one of those great moments of history governed and directed by a higher will ... the Revolution had a genius which presided over its every act, and, when success was in sight, almost never erred.'

Freeing these marvellous phrases from the imagery which Renan was so fond of whenever he discussed events of major significance, we arrive at some prosaic conclusions of perfect relevance for the Dreyfus affair.

When the historian is called upon to examine political upheavals, he must not try to explain them by means of the genius of those men who are credited, by popular opinion, with the glory of changing the course of events. There is indeed an obvious, enormous, and, one is tempted to say, scandalous disproportion between the intellectual and moral calibre of the revolutionaries and the results which eventually emerge in the course of time. If from time to time one drags the participants out of the obscurity their stature deserves, it can only be for the sake of showing that their so-called genius is an illusion deriving from the seriousness of the problems through which they lived.

Unlike almost all the outstanding men of the Revolution, the protagonists in the Dreyfus affair have not had the good luck to be consecrated by misfortune. Renan was precisely right to say that it was an excellent thing for Desmoulins and the Prairial rebels to have died young under the guillotine. But the Dreyfusards have not only been loaded with honours; they have not even been able, generally speaking, to enjoy their triumph with restraint. They will have no legend; they are therefore much more easily understood than our *great ancestors* ...

When I speak of the Dreyfusian 'revolution,' my point is not simply that the

habilitation of Captain Dreyfus, twice condemned by courts martial, uld be achieved only by damaging our traditions to such an extent that e now live in an era very different in its character. Nor is my purpose only point out that this transformation derives from what was called the nlargement of the affair'; to overcome the conservative forces which nexpectedly obstructed them, the Dreyfusards were obliged to appeal to e popular masses, who had been discontented for so long with the es-blished order – masses for whom the Republic had been a burden rather an a benefit, and who, after intimidating the conservatives, were eventu-y to terrify their erstwhile allies; it became a matter of pressing necessity try to appease them with social legislation. My main purpose here is to aw attention to the analogies between this recent upheaval and the polit-al revolutions of the past. Such analogies may be of use in improving our nderstanding either of current social processes or of past events.

Two phases of revolution must be distinguished. The first includes the sturbances which attend the fall of the old order, pitiless and sometimes oody struggles between groups contending for power, and *ad hoc* and ten fiercely partisan decrees designed to crush totally the power of the efeated. Here one confronts a series of episodes analogous to those hich students of political history know well, although the episodes are in-eed more passionate than in normal times. Men accomplished in the art extracting stories of wide popular appeal from the evidence find splen-d source material here; it is natural that so many authors should be at-acted by events which afford such scope for their talents.

There follows a period of calm, coercion, dictatorship, which seems so lourless in comparison with the former phase that it has often been sug-sted that the national spirit must have exhausted itself in the superhu-an efforts required to overthrow the old regime. The exceedingly flat po-cal life of this period does not interest narrators of the dramatic, and roniclers can scarcely believe that the period belongs in the same class the preceding turmoil; it is the latter alone that is called 'revolution' in dinary usage, because only there can one see the marks of creative nius.

The analogies we may try to establish between various revolutions con-rn only their general outline, or, so to speak, their composition. We must t expect that we shall necessarily find bloody exploits like those of 1793. erything would have passed off in a peaceful enough manner in 1848 if

the proletariat of Paris had not felt themselves strong enough in June to bring into play demands for 'the right to work' – a right which, according to the propagandists of the day, was destined to become the basis of the new order. The workers were beaten in the struggle, and the Republicans thought it wise to treat them as our *great ancestors* had treated the nobility.

Chroniclers assign a quite disproportionate significance to the acts of force which often put an end to the period of turmoil; the description of such acts frees them from the need to search out the true reasons for the change. The vanquished furiously denounce the wickedness of greedy, ambitious, and unscrupulous men who violate the laws to satisfy their urge for domination. The victors maintain that they have saved the country from disaster and readily assume the title of 'fathers of the nation.' Hence the real meaning of the events comes to be lost.

What is truly essential is the transformation which occurs in ideas. What are the dramatic incidents of December 2nd, so passionately recounted by Victor Hugo, in comparison with what Marx established; that the industrial and commercial bourgeoisie had turned against the parliamentarians who were meant to represent them, but who fiercely opposed the president? They wanted a strong government which would put an end to ineffective factional intrigues, protect them against the threats posed by the secret societies, and actively stimulate railway construction.

A moment always comes when the nation ceases to be moved by the magical hopes which filled the hearts of the men who made the revolution; eventually these hopes are condemned by moderate men as dangerous illusions which lead the mind astray. In place of hopes which promised the regeneration of mankind, there are practical expedients designed to procure very limited benefits. The day that a good number of the principal actors in the revolutionary drama judge that their interests, passions, and prejudices have been largely satisfied, any statesman with a taste for wielding power can try his luck with a reasonable chance of success.

If the militants are good boys and let things take their course, the master need not have recourse to very extreme means. On the 18th Brumaire, force was used more brutally because the government thought the secret societies were stronger than they were in fact; they took prompt, energetic, and decisive measures; those carrying them out wished to make a show of zeal and often were unduly repressive; but, in the last analysis,

Melchior de Voguë was not far off the mark when he called it 'a rather rough police operation.' Usually the victors try as quickly as possible to erase all memory of the tyrannical measures they were obliged to use during the crisis; this will be easier the more hostile public opinion is to the revival of the institutions which have been suppressed.

It is the second phase of revolution that is of particular interest to historians of institutions. At the beginning, promises, prayers, and plans are offered in such confusion that it is impossible to determine what the outcome of the upheaval will be. The results which have emerged during the calmer period are held to constitute the essence of the initial revolutionary impulse; what has come to nothing is dismissed as error, illusion, or individual aberration. According to one's point of view, one will say either that the revolution is over, or, on the contrary, that it is taking place; the former corresponds to the chronicler's standpoint, the latter to that typical of historians of institutions.

Writers often discuss the question of who is responsible for the benefits flowing from the new regime; some, wishing to please the powers that be, extol their knowledge, ability, and energy and hold them to be truly creative; others, more interested in exploits than in results, maintain that all honour is due to those who toppled the old order and who would have done much more than their successors if they had had the chance. This controversy would be vain if the two phases of revolution did not form a whole which the analyst cannot dissociate.

When peace is firmly established and the future assured, efforts are made to confirm the new generation in the belief that the new regime is based on unchallengeable doctrines of public law. From the time of Napoleon, a great deal of stress has been placed on the notion that the changes which had taken place derived from principles of natural justice, principles which had become manifest to the human mind and whose excellence was proved by the prosperity of those lands fortunate enough to have adopted Napoleonic Law. After 1852, there was an enormous increase in the wealth of France; thanks to the growth of business, this country seemed to approach the ideal proposed by free-enterprise political economy; for many years, education has been devoted to confirming the optimistic conclusions of 'liberal' economics.

The Dreyfusards have been obliged to introduce a good deal of social legislation, with a view to securing the allegiance of the lower classes who

frighten them so much. A new philosophy has been evolved in order to persuade the rich of their great social duty to acquiesce in the heavy taxation which the post-Dreyfus state needs in order to lavish benefits on the poor. It is what is called 'the philosophy of solidarity'; it might more accurately be termed *a philosophy of hypocritical cowardice.*

UW

Georges Sorel

syndicalism

Vernon, Richard - Commitment & Change HX263.S6 V47 (Suzz) allen N2

ph'copy: p. 35-50?
111-125

Sorel, Reflens o Violence - poli sci HM101. S713

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Horowitz, Irving - Radclm & revolt agnst reason HX263.S6 H5

ph'copy 188-193 → Humphrey, Richard - Prophet w/o Honor UGL 335 So62h
198-208
208-212

Roth, Jack J. Cult of Violence: Sorel & Sorelians Suzz or UGL HX263.S6 R67

#Lichtheim, George -
ph'copy pp. 24-30 Marxism in Modern France poli sci HX263 L43 Suzz allen N2

p. 215
206
200-01
68-72
p. 6 - gkng pie

check the pub date of Gone With the Wind, to see whether Bourke-White cd have been reading it in 'Nov. '36 ('37 Pulitzer)

Art. Stx

The address of a museum or library of the history of cameras. (I want to send them a picture of a specific camera to identify.)

In The Museum/Library Directories available to me, nothing stood out as "history of camera"

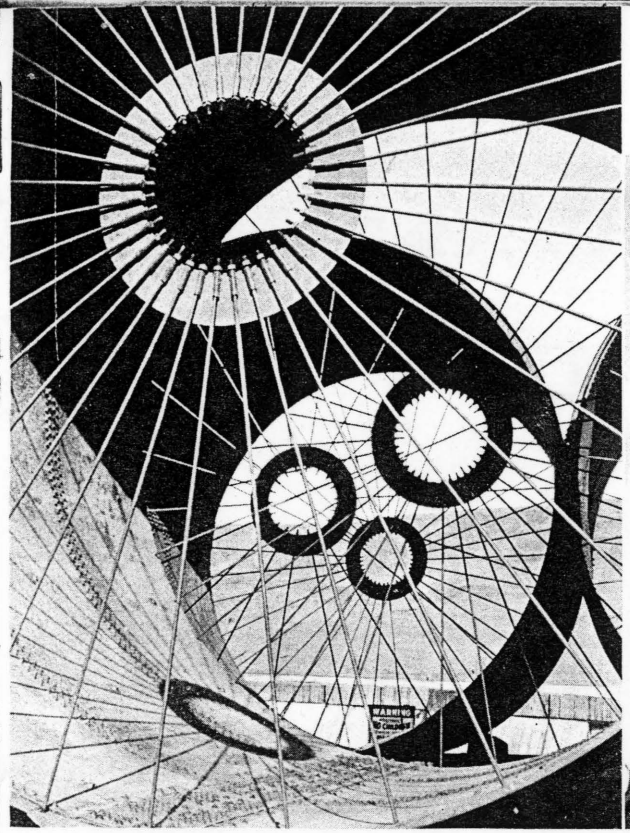
I would try the following museums, stores + magazines first:

- Museum of History + Industry, Seattle 2700 24TH E 324-1125
- Glazer's Camera Supply, Seattle 430 8th N 624-1100
- Warshal's, Seattle 1st + Madison 624-7303

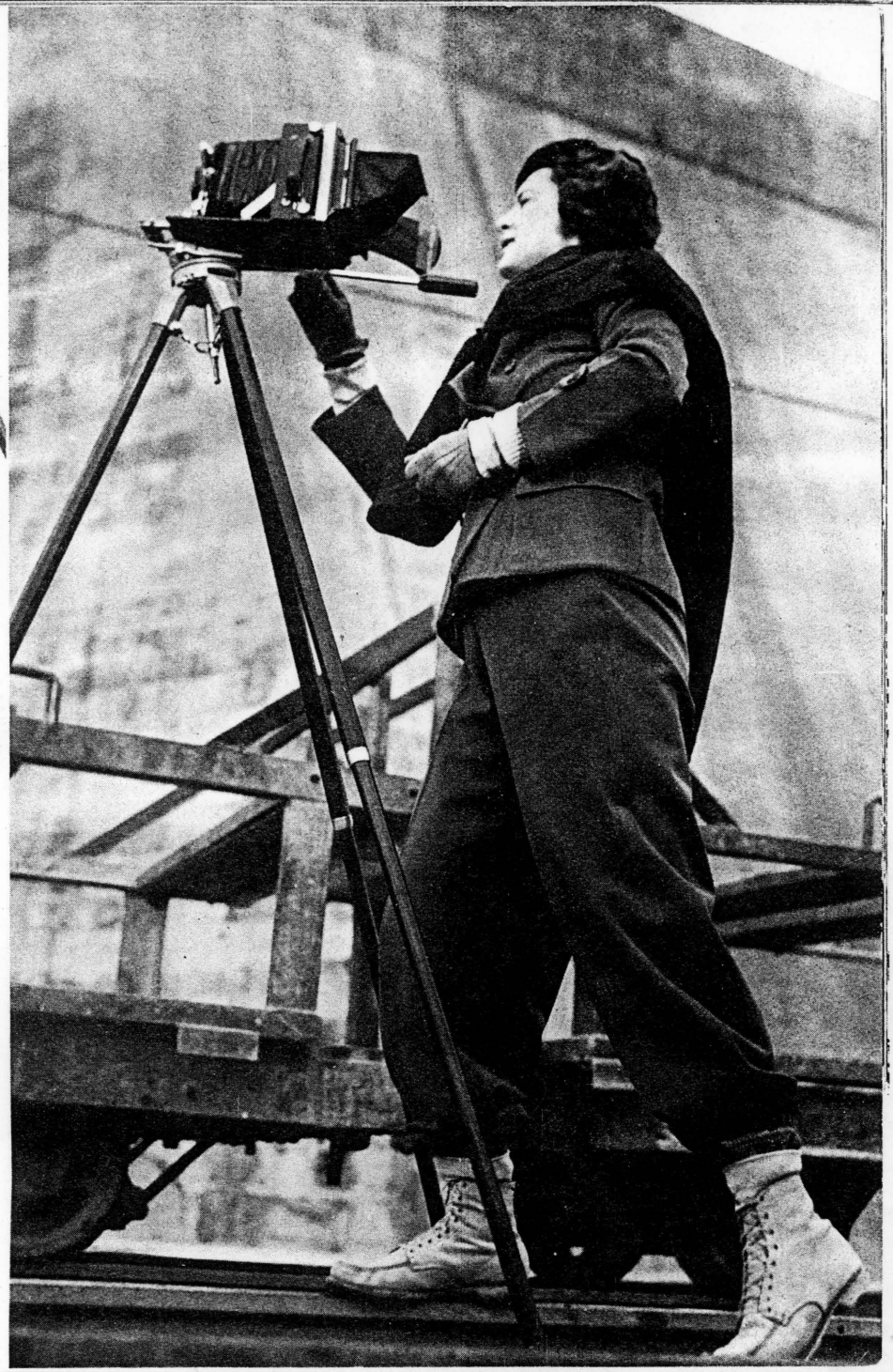
The husband of one of my co-workers is a camera buff. He suggests

- send a photo + details of inscriptions on camera to
  Shutter Bug Magazine, 5211 S. Washington Ave, Titusville, FL 32780
  (407) 268 5010
- contact "Photography on Bald Mountain" a camera fix it place in California: (408) 423-4465

Hope this ~~it~~ helps let me know if you want me to look further.



Left: Photo by Bourke-White.
Taken especially for publication in this booklet and reproduced by permission of Life, Magazine.



FORT PECK COMES TO LIFE—LIFE COMES TO FORT PECK

Miss Margaret Bourke-White, Photographer Extraordinary, famous for her unique style of camera slants, can well be classed at the top of her profession. TIME and FORTUNE, Inc., needed just such a "Campaigner" to add the finishing touch to their picture-magazine, "LIFE." Therefore they engaged Miss Bourke-White as a member of their staff and immediately placed her on such important assignments as photographing the Justices of the U. S. Supreme Court at work and at play, Big Dams, Air Ways and Life in general. Her ability to delve beneath the surface of things and bring forth portrayals of life's little peculiarities is astounding. Therein lies the secret of her success. Wheels, objects in disarray, human expressions and everyday habits contain subject matter sufficient to occupy her for hours. People of Fort Peck and vicinity will long remember Miss Bourke-White's visit, especially those who had occasion to observe her tactics while engaged in photographing life here.

MSU: "The Story of Ft. Peck Dam"

BACKGROUND MEMORANDUM TO PART VI

Every campaigner, especially for leadership of a large and complex state or for national office, is a cripple. His legs are bound against running faster than his constituents are able to keep in step. His hands are tied by the limited powers of the office he seeks; he had better not promise what he knows he cannot deliver. His tongue is gagged against pronouncements that may make new friends if those pronouncements will also make new enemies. His balance is threatened by the pulls and tugs of conflicting demands for justice: Shall money go for this urgent need or that one? Shall this group's freedom be expanded at the expense of that one's?

Immobilized by these paralyzing constraints, the candidate has to make himself appear able-bodied, attractive, confident, and powerful—at least, more so than his opponent.

Being crippled—not in metaphor but in reality—is perhaps good schooling for politics.

To this day, more than a quarter century after his death, people keep wondering aloud and speculating, "If Roosevelt had not been a cripple, would he have been the same kind of President?" Of course not. If a different kind, how? Impossible to say. "If he had not been a cripple, would he have become President at all?" Again, imponderable.

Did F.D.R.'s private battle teach him to identify with those who suffer? Unquestionably. Moreover it taught him the uses of patience (never a strong suit with crusaders who relied upon him, upon whom he relied, yet who continually harassed him). It heightened his sense of time and timing. "It made him realize"—an observation of Egbert Curtis, his Warm Springs companion—"that he was not infallible, that everything wasn't always going to go his way." More than anything, it forced him to study the

uses of handicap, giving him a leg up in a profession of able-bodied crippled men.

Let's not carry theory and speculation too far. Instead let's try to observe firsthand, in so far as the written word permits, the connections between suffering and Roosevelt's acquired capacity for patience, for tolerance and respect of the wills and ambitions of others, for turning handicap into power.

We begin with his own words. A sufferer identifies with sufferers; and "Doctor" Roosevelt of Warm Springs also identifies with other doctors. In F.D.R.'s early days at Warm Springs, a South Carolina physician, Dr. William Eggleston, writes to Roosevelt for a personal case report that might help him treat a polio patient who came his way. Roosevelt's reply is the only detailed personal account of what he recently endured. The letter, dictated to Missy LeHand during their first stay at Warm Springs, says in part:

> . . . I am very glad to tell you what I can in regard to my case and as I have talked it over with a great many doctors can, I think, give you a history of the case which would be equal to theirs.
>
> First symptoms of the illness appeared in August, 1921. . . . By the end of the third day practically all muscles from the chest down were involved. Above the chest the only symptom was a weakening of the two large thumb muscles making it impossible to write. There was no special pain along the spine and no rigidity of the neck.
>
> For the following two weeks I had to be catheterized and there was slight, though not severe, difficulty in controlling the bowels. The fever lasted for only 6 or 7 days, but all the muscles from the hips down were extremely sensitive to the touch and I had to have the knees supported by pillows. This condition of extreme discomfort lasted about 3 weeks. . . . This sensitiveness disappeared gradually over a period of six months, the last remaining point being the calf muscles.
>
> As to treatment—the mistake was made for the first 10 days of giving my feet and lower legs rather heavy massage. This was stopped by Dr. Lovett, of Boston, who was, without doubt, the greatest specialist on infantile paralysis. In January, 1922, 5 months after the attack, he found that the muscles behind the knees had contracted and that there was a tendency to foot-drop in the right foot. These were corrected by the use of plaster casts during two weeks. In February, 1922, braces were fitted on each leg from the hips to the shoes, and I was able to stand up and learned gradually to walk with crutches. At the same time gentle exercises were begun, first every other day, then daily, exercising each muscle 10 times and seeking to avoid any undue strain by giving each

muscle the correct movement with gravity. These exercises I did on a board placed on the bed.

The recovery of muscle paralysis began at this time, though for many months it seemed to make little progress. In the summer of 1922 I began swimming and found that this exercise seemed better adapted than any other because all weight was removed from the legs and I was able to move the legs in the water far better than I had expected. . . .

I still wear braces, of course, because the quadriceps are not yet strong enough to bear my weight. One year ago I was able to stand in fresh water without braces when the water was up to my chin. Six months ago I could stand in water up to the top of my shoulders and today can stand in water level with my arm pits. This is a very simple method for me of determining how fast the quadriceps are coming back. Aside from these muscles the waist muscles on the right side are still weak and the outside muscles on the right leg have strengthened so much more than the inside muscles that they pull my right foot forward. I continue corrective exercises for all the muscles.

To sum up I would give you the following "Don'ts":

Don't use heavy massage but use light massage rubbing always towards the heart.

Don't let the patient over-exercise any muscle or get tired.

Don't let the patient feel cold, especially the legs, feet or any other part affected. Progress stops entirely when the legs or feet are cold.

Don't let the patient get too fat.

The following treatment is so far the best, judging from my own experience and that of hundreds of other cases which I have studied:

1. Gentle exercise especially for the muscles which seem to be worst affected.

2. Gentle skin rubbing—not muscle kneading—bearing in mind that good circulation is a prime requisite.

3. Swimming in warm water—lots of it.

4. Sunlight—all the patient can get, especially direct sunlight on the affected parts. It would be ideal to lie in the sun all day with nothing on. This is difficult to accomplish but the nearest approach to it is a bathing suit.

5. Belief on the patient's part that the muscles are coming back and will eventually regain recovery of the affected parts. There are cases known in Norway where adults have taken the disease and not been able to walk until after a lapse of 10 or even 12 years.

I hope that your patient has not got a very severe case. They all differ, of course, in the degree in which the parts are affected. If braces are necessary there is a man in New York . . . who makes remarkable light

braces of duraluminum. My first braces of steel weighed 7 lbs. apiece—my new ones weigh only 4 lbs. apiece. Remember that braces are only for the convenience of the patient in getting around—a leg in a brace does not have a chance for muscle development. This muscle development must come through exercise when the brace is not on—such as swimming, etc.[1]

At Hyde Park, before discovering Warm Springs, this powerful man, to the shock of his children and friends, practices dragging himself crablike across the floor, explaining that the one fear he ever knew was that of being caught in a fire. Then, showing off his inordinately strong shoulders and arms, he fills the house with laughter, wrestling his boys on the floor, two at a time. Mama orders an electric tricycle from Europe, but F.D.R. uses it only once. He doesn't want his muscles *worked;* he wants to work them himself.

John Gunther describes Roosevelt's determination to get from floor to floor unaided: "Day after day he would haul his dead weight up the stairs by the power of his hands and arms, step by step, slowly, doggedly; the sweat would pour off his face, and he would tremble with exhaustion. Moreover he insisted on doing this with members of the family or friends watching him, and he would talk all the time as he inched himself up little by little, talk, talk, and make people talk back. It was a kind of enormous spiritual catharsis—as if he had to do it, to prove his independence, and had to have the feat witnessed, to prove that it was nothing."

At Warm Springs in 1924, coached by Dr. LeRoy Hubbard, "surgeon-in-chief," and Helena Mahoney, head physiotherapist, he concentrates on the day he will be able to walk unaided with braces. Braces, which he once said he "hated and mistrusted," which he cannot put on or take off by himself, make him like a man on stilts. Unable to flex his toes, he has no balance. In 1928, after seven years of immobility and more than four years of daring and persevering, one day, finally, triumphantly, he hobbles most of the way across the living-room floor of his cottage—with braces, but without human help. The achievement is exhausting—and is never to be accomplished again. Years later, according to Grace Tully, "Missy's eyes filled up when on occasions she reminisced about those days." Roosevelt likes to maintain the belief that if he had had another year before the demand that he run for Governor, he'd have mastered walking with a single brace.

In the summer of 1928 at Warm Springs, shortly after Roosevelt agrees to address the Democratic National Convention at Houston, son Elliott, eighteen, is visiting. One evening, Roosevelt is lost in concentrated thought when suddenly he bursts out:

"With my hand on a man's arm, *and one cane*—I'm sure. Let's try it!"

A fellow polio, Turnley Walker, Roosevelt's dinner guest, describes what then happens over and over:

"First Roosevelt would get over to the wall and balance there with his cane. It was an ordinary cane but he held it in a special way, with his index finger extended down along the rod from the handle. This finger acted as a rigid cleat . . . so that the strength of the massive arm and shoulder rammed straight along the cane to its tip against the floor.

" 'Now, Elliott, you get on the left, my weak side.' Elliott watchfully took his place and Mahoney came forward to show him how to hold his right arm against his middle at the proper angle and lock it there with a clenching of his biceps.

" 'Remember that a polio needs more than a fingertip of guidance—he needs an *iron bar,'* said Mahoney. 'Make a habit of *holding that arm there.* Never forget the job it's got to do.'

" 'Let's go,' said Roosevelt, and he reached out to find the proper grip. Elliott had never felt his father's hand touching him that way. He had been grabbed and hugged, and even tossed and caught with wild energy when he was younger. But now the fingers sought their grip with a kind of ruthless desperation. . . . The pressure became stronger than he had expected as his father pressed down to hitch one braced leg forward for the first step. 'You must *go right with him,'* said Mahoney sternly. 'Watch his feet. Match your strides with his.' Elliott stared down as the rigid feet swung out slowly, and through the pressing hand he could feel the slow, clenching effort of his father's powerful body.

" 'Don't look at me, Son. Keep your head up, smiling, watching the eyes of people. Keep them from noticing what we're doing.'

"The cane went out, the good leg swung, the pressure came, the weak leg hitched up into its arc and then fell stiffly into the proper place against the floor. Elliott carefully co-ordinated his own legs, and they moved across the room.

"Roosevelt set his hips against the far wall and told Elliott to rest his arm. 'We'll do beautifully,' he said.

"They went across the room and back again. It was becoming somewhat easier.

" 'As soon as you feel confident, Son, look up and around at people, the way you would do if I weren't crippled.'

" 'But don't forget,' Mahoney warned, 'if he loses his balance, he'll crash down like a tree.'

" 'Don't scare us,' said Roosevelt.

". . . The cane, the swing, the pressure, the swing. Elliott found that he could look up now and then as they advanced. He caught his father's eyes,

the broad smile which was held with a very slight rigidity. . . . Only then did he notice that his father was perspiring heavily."

Yet, except when a public show requires such extraordinary exertion, Roosevelt is as helpless as a baby. When no strangers are around to see, he lets himself be carried by practiced attendants. When F.D.R. becomes governor, his cousin Nicholas Roosevelt spends a weekend at Hyde Park, and is to recall: "His mother and I stood on the veranda watching his son Elliott and Gus Gennerich, the state trooper who acted as his personal bodyguard, carry him down the steps and place him in the car. As they turned and left him, he lost his balance (his powerful torso was much heavier than his crippled legs), and he fell over on the car seat. I doubt if one man in a thousand as disabled and dependent on others would have refrained from some sort of reproach, however mild, to those whose carelessness had thus left him in the lurch. But Franklin merely lay on his back, waved his strong arms in the air and laughed. At once they came back and helped him to his seat behind the wheel, and he called me to join him."

Early on, Louis Howe sets an iron rule—one that F.D.R. is scarcely inclined to resist—that he must never be carried in public.[2]

Frances Perkins recalling the gubernatorial campaign: "I saw him speak in a small hall in New York City's Yorkville district. The auditorium was crowded. . . . The only possible way for any candidate to enter the stage without being crushed by the throng was by the fire escape. I realized with sudden horror that the only way he could get over that fire escape was in the arms of strong men. That was how he arrived.

"Those of us who saw this incident, with our hands on our throats to hold down our emotion, realized that this man had accepted the ultimate humility which comes from being helped physically. . . . He got up on his braces, adjusted them, straightened himself, smoothed his hair, linked his arm in his son Jim's, and walked out on the platform as if this were nothing unusual. . . . I began to see what the great teachers of religion meant when they said that humility is the greatest of virtues, and that if you can't learn it, God will teach it to you by humiliation."

Is humility—or humiliation—Roosevelt's great teacher? Many have speculated. Ickes, after a day in a campaign car with Steve Early:

"[Early] recalled the campaign trips that he had made with Roosevelt when the latter was a candidate for Vice President in 1920. He said that if it hadn't been for the President's affliction, he never would have been President of the United States. In those earlier years, as Steve put it, the President was just a playboy. . . . He couldn't be made to prepare his speeches in advance, preferring to play cards instead. During his long illness, according to Steve, the President began to read deeply and study public questions."

Perkins: "I saw Roosevelt only once between 1921 and 1924, and I was instantly struck by his growth. He was young, he was crippled, he was physically weak, but he had a firmer grip on life and on himself than ever before. He was serious, not playing now. . . . He had become conscious of other people, of weak people, of human frailty. I remember thinking that he would never be so hard and harsh in judgment on stupid people—even on wrongdoers. . . . I remember watching him [as governor] in Utica. . . . Certainly some of the Democratic rank-and-file were pretty tiresome, with a lot of things to say that were of no consequence. However, he sat and nodded and smiled and said, 'That's fine,' when they reported some slight progress. I remembered, in contrast, how he had walked away from bores a few years earlier when he was in the State Senate.

"Now he could not walk away when he was bored. He listened, and out of it learned . . . that 'everybody wants to have the sense of belonging, of being on the inside,' that 'no one wants to be left out,' as he put it years later in a Columbus, Ohio, speech. . . . He became thoroughly familiar with the concept that good and evil, hope and fear, wisdom and ignorance, selfishness and sacrifice, are inseparably mixed in most human beings."

A considerably more speculative observation, by Noel F. Busch, childhood neighbor of the Oyster Bay Roosevelts who grew up to be a *Time* correspondent and avid F.D.R.-watcher: "Loss of the use of one's legs has several effects on the human psyche. One is that, when deprived of the power to move around, the mind demands a substitute or compensation for this power, such as the ability to command other people to move around. That is why almost all invalids tend to be peckish and demanding. However, . . . Roosevelt sublimated and refined the pardonable peevishness of the normal invalid into an administrative urge which would have had profound consequences for him even if he had never become President."

Biographer Emil Ludwig: "The privilege of remaining seated, which everyone concedes him because of his affliction, starts him off with an advantage in his intercourse with others, in the same way as the smallness of Napoleon's stature compelled everyone standing before him to bend his back a little. Certainly giants like Bismarck or Lincoln had an advantage when they appeared before men, but the same effect can be produced by the opposite, by a weakness, and as Roosevelt looks up at everyone standing in front of him, he has accustomed himself to an upward and therefore very energetic gesture of the chin which counteracts the danger of his conciliatory smile."

Gunther (who, it should be pointed out, was not many times in Roosevelt's presence but who was fascinated by the psychological implications of his affliction, and probed those closest to F.D.R. about it): "He loved gossip so much because he himself could not get around; talk was an outlet

for all his suppressed energy. He loved holding the tiller of a boat because this gave him a sense of controlling motion."[3]

While never mentioning his paralysis in public (until his last speech to Congress in 1945) and seldom privately, F.D.R. can come down fiercely on those he feels mention it unfairly. Huey Long's tapping a straw hat on the useless presidential knee he can take as bad manners—the other fellow's problem, not his. But when Fulton Oursler brings him a manuscript of a profile of F.D.R. by Jay Franklin to be published in *Liberty*—the editor courteously seeking F.D.R.'s reaction—Oursler sees "a red flush rise on his neck like the temperature in a thermometer." Assuming that Roosevelt is angered over some political needling, he learns otherwise:

"Mr. Oursler, there is only one statement in this article that I want corrected. The author says in this line here that I have 'never entirely recovered from infantile paralysis.' *Never recovered what?* I have never recovered the complete use of my knees. Will you *fix* that?"

His reluctance to mention it—and the released heat that accompanies exceptions—are shared by Mrs. Roosevelt. At an Akron, Ohio, lecture she is asked: "Do you think your husband's illness has affected his mentality?" Betraying no emotion as she reads the written question aloud, she pauses for an extra, cooling moment and replies: "I am glad that question was asked. The answer is Yes. Anyone who has gone through great suffering is bound to have a greater sympathy and understanding of the problems of mankind." The audience rises in an ovation.

He is frequently torn between keeping his silence and protesting his case. On April 6, 1938, he writes to an "old friend"—Elliott's description—mentioning his affliction. The important thing is not what he writes but his decision not to mail it. Instead, he marks it "Written for the Record" and files it away. It says in part:

> . . . I do not mind telling you, in complete 100% confidence, that in 1923, when I first went to Florida . . . my old running mate, Jim Cox, came to see me on my house-boat in Miami. At that time I was, of course, walking with great difficulty—braces and crutches. Jim's eyes filled with tears when he saw me, and I gathered from his conversation that he was dead certain that I had had a stroke and that another one would soon completely remove me. At that time, of course, my general health was extremely good. . . .
>
> Jim Cox from that day on always shook his head when my name was mentioned and said in sorrow that in effect I was a hopeless invalid and could never resume any active participation in business or political affairs. As late as 1931—I think it was—when I was coming back from the Governors' Conference in Indiana, I stopped off at Dayton to see

Jim Cox. He had had a very serious operation, followed by a thrombosis in his leg, and was very definitely invalided. His whole attitude during the two hours I spent with him alone was the same—that it was marvelous that I could stand the strain of the Governorship, but that in all probability I would be dead in a few months. He spent the greater part of the time asking me solicitously how I was, though he was a much sicker man than I was.

He made a fine come-back and is furious today if anybody ever refers to the thrombosis he had in his leg—but I still think he expects me to pop off at any moment.

While deciding not to mail that letter, at other times he can be as open as a billboard. Son Jimmy recalls that on one of Madame Chiang Kai-shek's visits to the White House, the grande dame thoughtlessly tells the President not to stand up as she rises to leave the room. He gently replies, "My dear child, I couldn't stand up if I had to."

In a wheelchair or an automobile, getting F.D.R. into or out of an overcoat is an awkward exercise. With a stage sense of costume, F.D.R. takes to a velvet-collared, braid-looped regulation Navy cape, which, along with his cigarette holder, becomes a personal mark. Again, disadvantage is the fabric from which, with flair and style, he fashions advantage.

Out of deference to his office as well as personal affection, newsmen virtually never mention the President's disability. So effective is their conspiracy, even upon themselves, that, as Gunther recalls, "hard-boiled newspaper men who knew that he could not walk as well as they knew their own names could never quite get over being startled when F.D.R. was suddenly brought into a room. The shock was greater when he wheeled himself and, of course, was greatest when he was carried; he seemed, for one thing, very small. . . . During the 1930's when I lived in Europe I repeatedly met men in important positions of state who had no idea that the President was disabled."

The people of the United States—his constituents, those from whom he draws strength and, more importantly, those who draw strength from him —know, yet don't know. They, too, waiting at tiny railroad depots, straining to see through the autumn sunshine the commanding figure of their President, freeze with shock at seeing the painfully slow-motion, brace-supported step-pause-step, what seems a tortuous mile from the train's rear door across the tiny observation platform to the microphone.

It is an unexpected, unforgettable drama of frailty and strength.[4]

Jean reports the Walker book at two locations:

1. SnoIsle 386-4636
2. Downtown Seattle Public, upstairs in BSC 386-4645 (business science). It's 1st American ed., 1985, Norton. 338.47673 / W152s

The college doesn't have interlibrary loan with Sea public.

She says the dissertation should be available through UMi. There's a request form which she thinks would be available at UW reference desk, and Dissertation Abstracts at UW should tell the cost of a photocopy. Jean thinks in $40 to $60 range.

Tom Moran through WLN to Internet 11/16/94

1. Mitchell Library is not listed for access.

2. The following two references are from Glasgow University:

shipbuilding clyde

Fred M. Walker. Song of the Clyde: A History of Clyde Shipbuilding.
Cambridge Stephens, 1984. US: Norton, 1985 338.47623 W152S
Economics L1340.G7 WAL

Glasgow rent strike

Discussion paper: Sean Damer. State, local state and local struggle:
The Clydebank rent strike of the 1920s.
Published by the Glasgow Center for Urban and Regional Resources,
U. Glasgow, 1985. CURR discussion paper #22.
Sociology qM160 CEN #22

Ship-building — Scotland

TJ
C1
M67 Moss, Michael — Workshop of. Br. Empire

Internet:

The Mitchell Library, Glasgow, Scotland; anything on Clydeside shipbuilding and/or labor agitation in the shipyards, 1910-1934. (Some of the shipyards on the River Clyde were at Greenock, Fairfield, Clydeholm, and Clydebank; a leading firm was John Brown and Co.)

--possible subtopics: The Fairfield Strike of Aug., 1915

The Glasgow Rent Strike of Oct.-Nov., 1915

The Forty Hours' Strike of Jan.-Feb., 1916

Sun.nsf.ac.uk

login janet

hostname uk.ac.glasgow.library

"end" to exit

Clyde

53-4 Ernest

83-4; 88-90 (minutes)

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1934

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135-#7 WWI

149-Qn Mary

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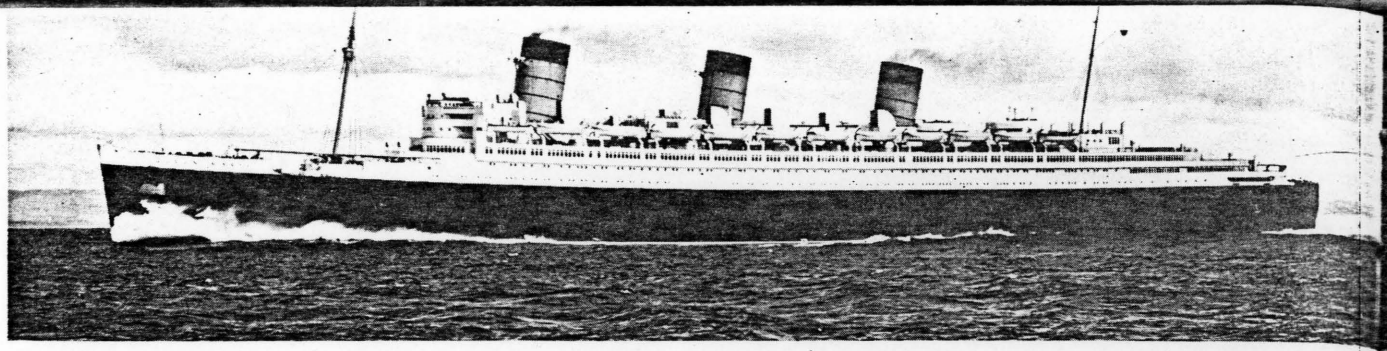
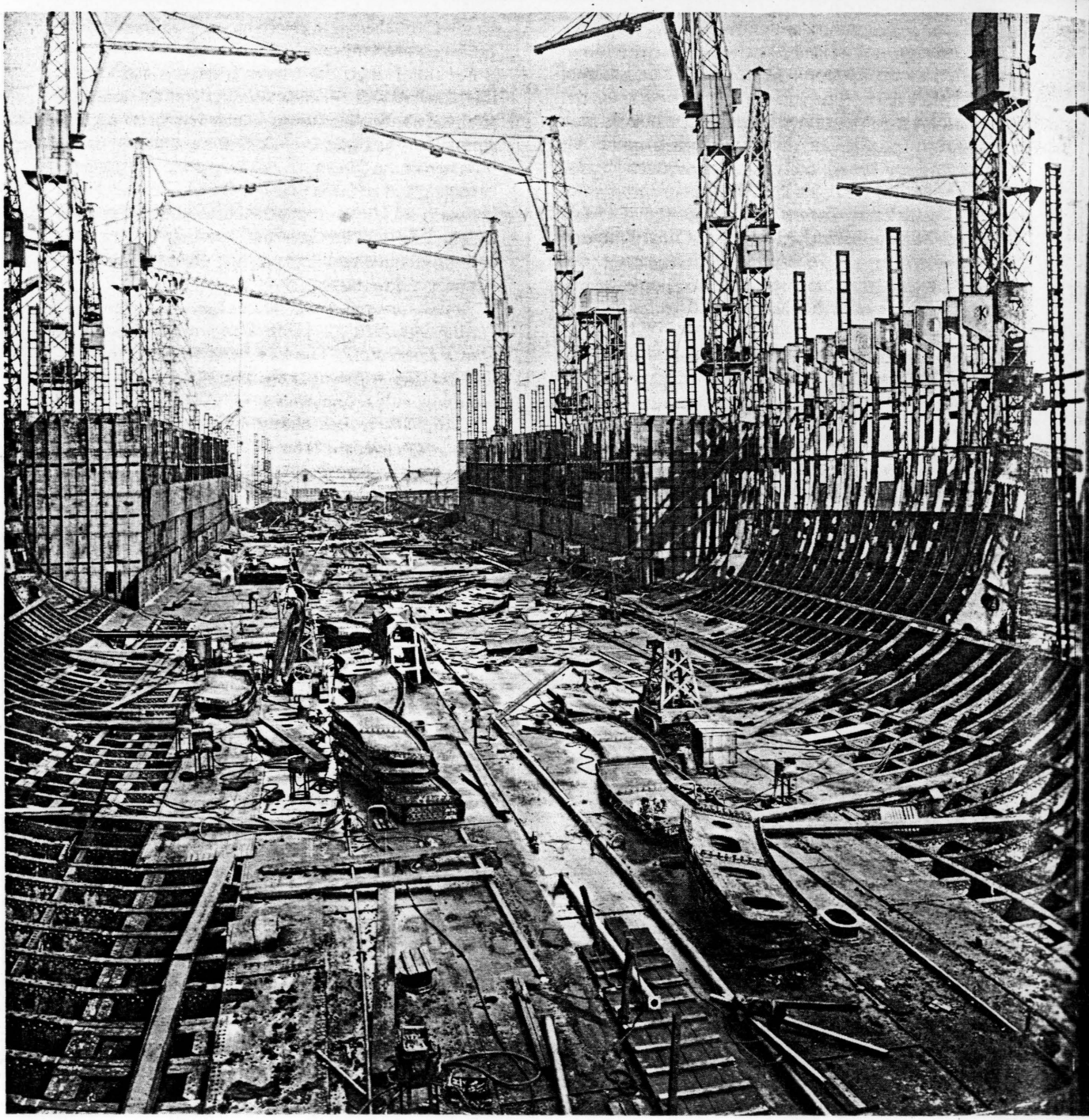
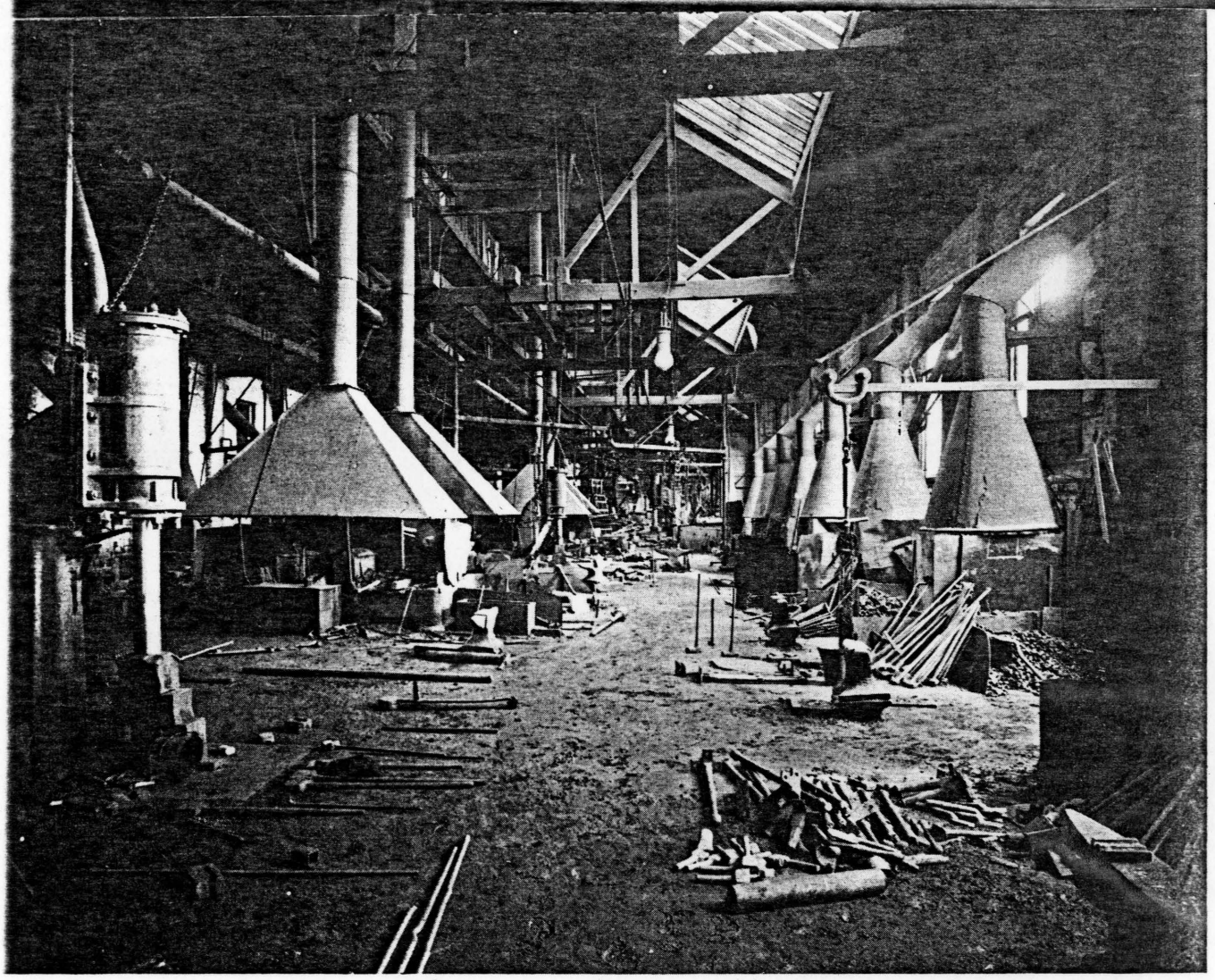
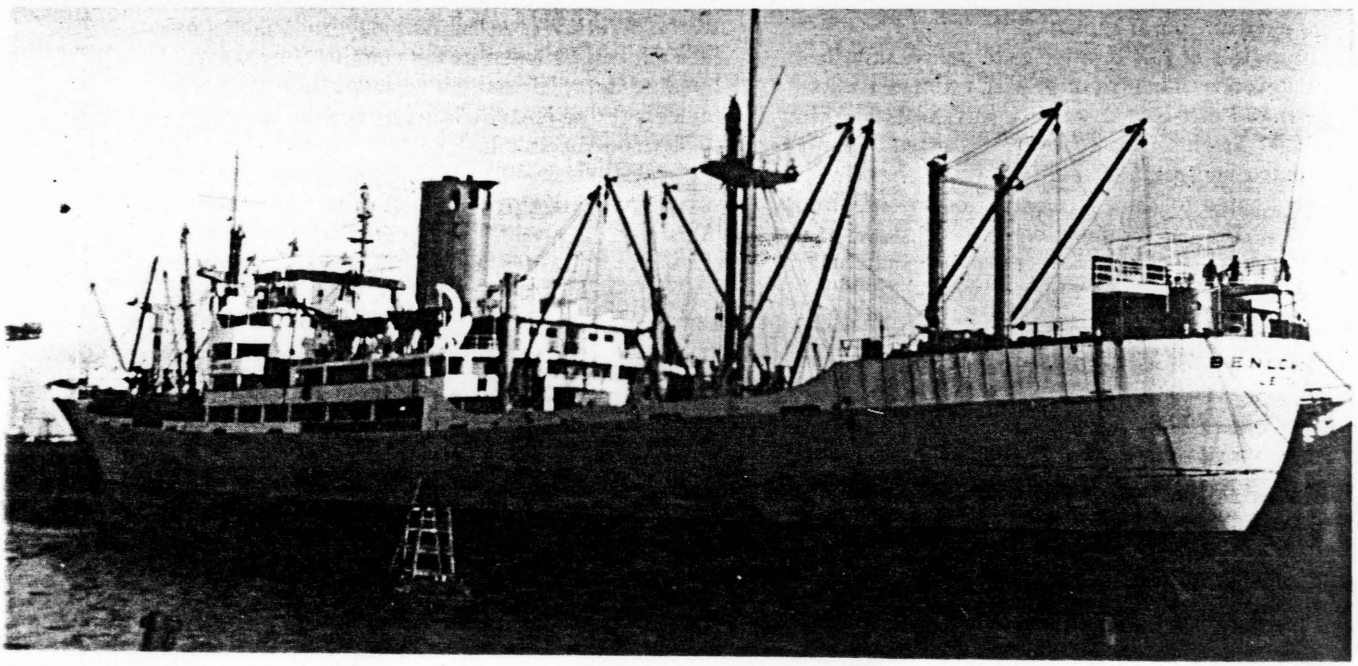
John Brown's shipyard,
1936 during construction of Queen Mary @ Clydebank





Blacksmiths shop in Brown's





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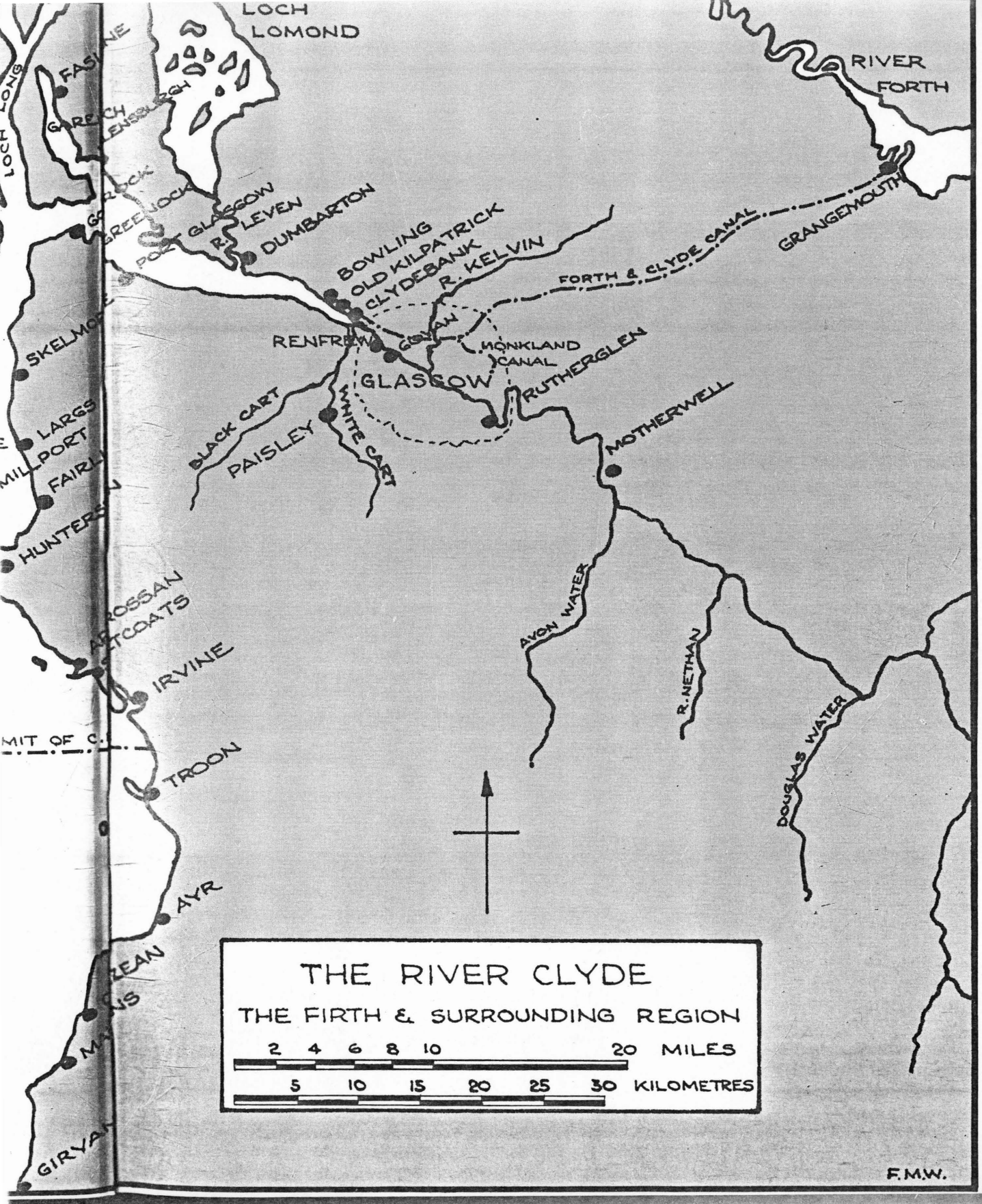
LOCH LOMOND
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GREENOCK
PORT GLASGOW
R. LEVEN
DUMBARTON
BOWLING
OLD KILPATRICK
CLYDEBANK
R. KELVIN
FORTH & CLYDE CANAL
GRANGEMOUTH
RENFREW
GOVAN
MONKLAND CANAL
GLASGOW
RUTHERGLEN
MOTHERWELL
BLACK CART
WHITE CART
PAISLEY
SKELMORLIE
LARGS
MILLPORT
HUNTERSTON
ARDROSSAN
SEATOCATS
IRVINE
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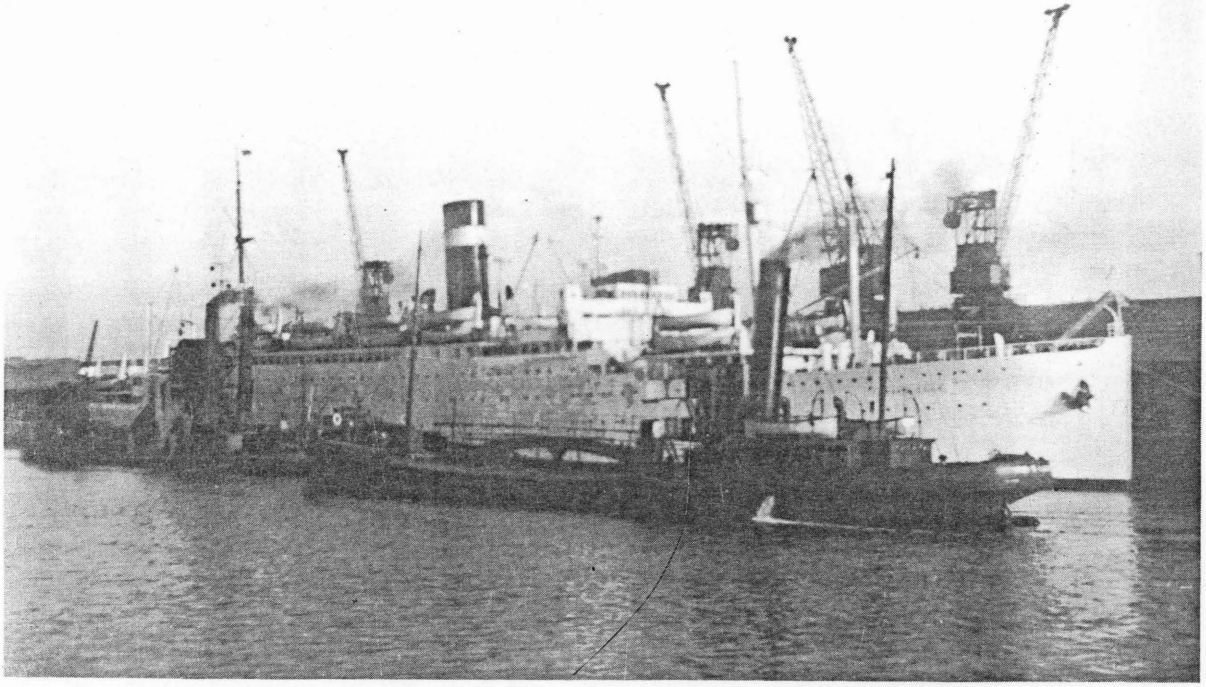


Built at Govan in 1925, the twin-screw Anchor-Donaldson liner Letitia *was sister ship to the* Athenia, *the first merchantman to sink in the Second World War. In 1946, the* Letitia *was purchased by the Government, converted to a troopship and renamed* Empire Brent. *In 1951, she was given a full scale reconditioning on the Clyde, and with her third name* Captain Cook *became a New Zealand emigrant ship. She had her base at Plantation Quay, Glasgow, and is seen here replenishing before sailing for the Antipodes.*

Few of them recognise the old shipyard of Thomas Seath and, equally, few know that James Watt is said to have thought of the separate steam engine condenser while walking in the Green.

From the centre of Glasgow the river, now fully tidal, passes 20 miles of some of the most historic ground in Scotland. On the banks of either side, until the end of the 1960s, one saw shipyards, docks, engine works and factories. Ferries plied at many crossings and two tunnels have been driven, one during the 19th century at Finnieston now closed, and the other for modern traffic to the west of Govan.

With the growth of trade and the improvement of the Clyde the shipyards flourished, indeed in 1880 there were about 70 shipbuilding establishments on the river, a number which has steadily dwindled since, although 1880 was not the peak for Clyde shipbuilding production. That came a quarter of a century later. Sadly this is no longer the situation with Queen's Dock now closed and partly filled in and Prince's Dock only partly open. However, one still has the pleasure of seeing major shipbuilding complexes at Govan, Scotstoun, Clydebank, Port Glasgow and Greenock and of passing under the high level bridge at Erskine.

Up to Greenock the river has been restrained, flowing between quay walls or in dredged channels sometimes marked by long banks in the centre of a broadening estuary. From Greenock the Tail of the Bank anchorage shows the river at its very best with the mountains of Argyll rising in dramatic beauty. The new Clyde Port Authority has jurisdiction over most of the Lochs and the Firth down to Arran. It includes the Hunterston ore terminal, the BP Finnart oil terminal and many other interesting developments making up a total of 450 square miles.

Since the Second World War the Gareloch has become host to a naval base and the Holy Loch to a smaller one for the United States Navy. The Clyde steamer fleet has dwindled in size and apart from the PS *Waverley* is now composed entirely of ferry type vessels. Yachting and water sports have boomed in an extraordinary way and the Clyde has reverted to being a sports centre of great repute. A period of great change is again under way and, it is to be hoped, one which can spark the inventive genius and enthusiasm of the Clydesider as did the development of the steam engine nearly two centuries ago.

Chapter 15

The Clydebank story

Despite the fact that John Brown's, Clydebank, is a household name, few people realise that Brown's history as a shipyard is relatively short, a mere 69 years compared with longevitous companies like Scott's of Greenock, Hall's of Aberdeen or Stephen's of Linthouse. Similarly it is little known that the name of the Burgh of Clydebank came to that region of Clydeside only a hundred years ago as the result of a move by the original Clyde Bank Shipyard of the Thomson brothers.

The story began in 1847 at Finnieston Street, Glasgow, when two brothers, James and George Thomson, secured ground and set up an engine and boiler works. They were well trained and started their business at a time when engineering had become well established on Clydeside and there was a steady expansion in demand for engineering goods and services. Their enterprise was rewarded and in three years, they were hunting for a new site on which to expand their business and to commence shipbuilding. In 1850 they opened a new establishment at Govan (where the dry docks are now situated) and this move presumably influenced their choice of name for the new works—the Clyde Bank Shipyard.

The life story of the two brothers is well documented and is typical of men of that period. James, the oldest of three brothers, served an apprenticeship as a joiner in Glasgow and, in 1826, joined Robert Napier as a patternmaker. This is a skilled and demanding occupation involving, among other things, the manufacture of timber moulds for iron and metal casting. For good consistent results with the minimum of finishing work to the casting, thoughtfulness and resource is required, coupled with a knowledge of wood, and an understanding of the behaviour of metal. James must have displayed these and other qualities as he rose to be foreman, and finally assistant manager working under another Napier man, David Elder. George Thomson served an apprenticeship, followed by time at sea and he, too, ultimately joined Napier as a foreman fitter.

While not within the compass of this story it is of significance that a third brother, Robert Thomson, also had a similar training, spent time at sea as an engineer before coming ashore to become the first superintendent engineer of the Cunard Line. Little can the three brothers have realised that the paths of their successors were to cross many times and that jointly the two companies were to build and run revolutionary and famous ships like *Servia* of 1881, *Carmania* of 1905, *Lusitania* launched in 1906, the *Aquitania* of 1913 and the world famous ships *Queen Mary, Queen Elizabeth* and *Queen Elizabeth 2.*

In a span of 21 years, Thomson's built over 120 ships at the Govan yard. As success breeds success, so the affairs of the firm prospered, a regular clientele was established and above all a name for high engineering standards earned. Undoubtedly the presence next door of their former employer, Robert Napier, must have been both an inspiration and a challenge to the two men. Govan was the undisputed centre for experimentation, and the work of Napier and his deputies focused the attention of the Press on the ancient burgh. With the building of HMS *Black Prince* and PS *Persia* at Napier's and with the experimental work of David Kirkaldy into the tensile strength of iron and steel, any shipyard in the vicinity was assured of a knowledgeable and versatile workforce.

Every student of Clydeside is aware of the building of three paddle steamers by J. & G. Thomson each with the name *Iona*, and all for David Hutchison one of the forerunners of today's Caledonian-MacBrayne Ltd. The first in 1855 was sold in 1862 to the

out from the centres of population while here the move was to a new yard on a green field site and to a stretch of water at the confluence of the Cart and the Clyde that allowed the very largest of ships to be built and launched safely.

George Thomson's sons James Rodger and George Paul were now in charge of the business, James senior having retired in 1864 and their father having died in 1866. Despite a family proclivity at that time for disagreement and quarrelling, they acted decisively, and co-operating with the Clyde Trustees, opened a new yard on the North Bank well away from Govan and continued their business during the time of upheaval and removal. The new Clydebank yard had room for expansion and it had water, the only initial problem was the redeployment of their manpower. This was overcome by the rapid building of tenements in the new area and by maintaining direct daily contact with Govan by their own iron paddle steamer *Vulcan* which had been built some years earlier by Robert Napier. By now logistics were a severe problem with more than 1,500 people employed.

Despite the ups and downs of the shipbuilding market, the company continued with a wide and varied order book. It is surprising that many vessels were not large, and not utilising the space now available. Rather they reflected the Thomson's desire to build ships with a high technical input, such as smaller passenger and cargo vessels, Clyde steamers like PS *Glen Sannox* and PS *Columba* and, in the 1870s, they went into the Admiralty market initially with gunboats and later torpedo boat destroyers and then slowly moving up the scale to cruisers and ultimately battleships.

One of the very direct advantages of the Clydebank site was the opportunity to lay out the yard properly and to set up good engine building facilities, which throughout the history of the company had a large measure of independence, and in fact continues today as John Brown Engineering Ltd, although with no direct marine engineering outlets.

In 1881 the Cunard Line were to take delivery of an unusual ship, the single-screw steamer *Servia*, with a length of 515 ft (157 m) and a breadth of 52 ft (15.8 m) giving the then fashionable 10:1 ratio for length to beam. Apart from the *Great Eastern*, the *Servia* was the largest ship in the world and was Cunard's first experience of using steel for construction. The machinery was a complex compound system, and alone it weighed 1,800 tons or 10 per cent of the ship's displacement, but drove the ship at 17 knots with propeller revolutions at the low but efficient rate of 53 rpm. The *Servia* can also be remembered as one of the first ships to have automatic closing watertight doors in the bulkheads. Despite Cunard going to Fairfield for *Umbria* and *Etruria* they stayed loyal to Clydebank, as did White Star to Belfast and the Inman Line to Barrow-in-Furness. As a matter of interest, the fashion for long narrow ships quickly ended as the benefits in stability, cost and reduced power for broader vessels became apparent.

In 1890 the company became incorporated under the Limited Liability Act, and the shareholding became more diversified. This in turn led in 18[illegible] to a change of title to the Clydebank Engineering [illegible] Shipbuilding Co Ltd. For just two years the shipyard operated with the name which was supposed [illegible] reflect an overall change in the balance of ownership, and in this period turned out well over 30 ships including the TSS *Moskva* for the Russian Volunteer Fleet and 20 barges for the same country.

In 1899 the company acquired the name John Brown & Co Ltd, the controlling organisation in Sheffield. John Brown's was one of Britain's major suppliers of armour plating, and to ensure an outlet for their product had looked at suitable shipyards for purchase, including Earle's of Hull and finally at the Clydebank yard. In 1899 they acquired the majority shareholding and a new and English name came to Clydeside. The situation and the size of the Clydebank yard was fortunate as their main rivals in the armour plating world, Messrs Vickers and Messrs Cammell had already obtained large yards in England in which their plating was used. Despite the change of name and of control, the Clydebank shipyard retained a remarkable degree of autonomy in arranging their affairs. It is interesting to note that John Brown & Co Ltd of Sheffield obtained a substantial part of the equity of the Belfast shipyard of Harland & Wolff Ltd around that time but never became involved in their day to day affairs.

Of John Brown himself, we know that he was a former Sheffield apprentice steel merchant who set up his own business at the Atlas Works in 185[illegible]. Through shrewd business arrangements with people like Henry Bessemer his career was assured and once on a firm base he then moved into armour plating to the extent that in 1867, a mere 11 years after setting up business, he had contracts for the armour of [illegible] per cent of all UK built ironclads. Ultimately the

control passed from John Brown to others, but to this day in various engineering activities the name continues.

It is difficult to describe in simple form the output and strength of the great Clydebank yard from 1899 to its merger with UCS in 1968. A procession of close on 400 of the world's largest merchantmen and mightiest warships were to be launched across the Clyde and into the Cart, and after outfitting make their way down the Clyde. These included the battleships *Australia, Barham, Duke of York* and others, the battlecruiser *Hood* and the last battleship for the Royal Navy, HMS *Vanguard*, which made its way down river in 1946 once hostilities were over.

Among the superb merchantmen were the trans-Atlantic liners *Aquitania* and *Empress of Britain*, the Cape mail liner *Transvaal Castle*, the Swedish Amerika *Kungsholm*, the four Cunard sisters *Saxonia, Ivernia, Carinthia* and *Sylvania* of the 1950s, each with their unmistakable dome topped funnels from which the last Glasgow tramcars took the name 'Cunarders'.

Two interesting naval orders after the Second World War were the Royal Yacht *Britannia* and the assault ship *Intrepid* which, when nearly 20 years old, sailed with the Falklands Task Force. The *Intrepid* has a docking system at the rear for handling landing craft and similar vessels, and when built was far ahead of its time. The *Britannia* is by any standards a ship of grace and beauty, her superb lines enhanced by immaculate deep blue topsides set off by a chased gold line. Surely no country has such a fine ceremonial vessel, nor one which has journeyed so far?

Despite the tradition and expertise of building very large ships, John Brown's were faced with mammoth design problems when it came to the launching, outfitting and delivery to the Tail of the Bank of the QSS *Queen Mary*. In 1907 the *Lusitania* had been 760 ft (232 m) long bp, and in fully laden condition displaced 38,170 tons, in 1934 at the launch of the *Queen Mary* they had to contend with a ship nearly 30 per cent longer and displacing at launch 36,700 tons and with a further 1,200 tons of sliding ways and make up. With typical resourcefulness, a 200 in (5 m) model was constructed and launched into a part of the shipyard model tank in conditions closely simulating the Clyde. The naval architect of the shipyard, James McNeill (later Dr McNeill and later again Sir James), created an equation to represent the motion of the ship at launch and from this he predicted the ship would travel 1,194 ft after it was launched—in fact the vessel travelled 1,196 ft. The launch was later described by Professor Hillhouse in the following words; 'I can honestly and enthusiastically say that never in my life have I seen a more perfect or a more beautiful launch.' As Hillhouse, in addition to his academic duties at Glasgow University, was naval architect to the great rival shipyard Fairfield, there can be no greater praise!

For this launch the Clyde Trust dredged around the shipyard and widened the Clyde at the entrance to the Cart. Steel columns which had been used to strengthen the hull were taken out and placed round the stern of the *Queen Mary* in order that a protective barrage could be fitted to ensure no ship collided with her stern sticking out into the fairway. The river was widened by rockbreakers and dredgers at Dalmuir and the channel re-aligned for the great ship to make her progress to the sea.

Similar arrangements were made for the QSS *Queen Elizabeth* for HMS *Vanguard* and for TSS *Queen Elizabeth 2*. The *Vanguard* with a draft of 32 ft 5 ins (9.9 m) went down river on May 2 1946, steaming with several tugs at 4 mph to Dunglass and at 8 mph thereafter taking 146 carefully planned minutes to cover the river west of Clydebank passing shallows and narrow parts at the optimum moment on the high spring tide.

Mention must be made of the engine works at Clydebank. From the outset the Thomson family set up specially designed engine works, and had a clientele of many outside the normal marine field. In 1908 they obtained a license to manufacture the Curtis turbines from Mr Charles G. Curtis of New York; these were a great success and in 1920 were the prime movers in the massive 144,000 shaft hp installation on HMS *Hood*. When negotiations were in progress between Brown's and Curtis, one of the junior American engineers came over, joined the Clydebank staff and in 1938 became managing director. Stephen Pigott retired from the company in 1948 with a knighthood and a DSc from his old university—Columbia NY.

In the 1960s Brown's had a most interesting work output with ships as varied as the *Queen Elizabeth 2* and the bulk carrier *Vennachar*, the Swedish America liner *Kungsholm* and the self-propelled jack-up rig *Offshore Mercury*. During the unhappy period leading up to the integration into Upper Clyde Shipbuilders Ltd and the completion of the great

...destroyers, 75 destroyers, two frigates and a ... lesser but equally interesting craft all built ... 1878 and the 1960s.

...most interesting warship contract was placed ... by the Australian Commonwealth Govern... three destroyers. The first, *Yarra*, was built ... barton, the second, *Parramatta*, at Fairfield, ... and the third, *Warrego*, was erected and ... at Govan, then dismantled and shipped to ... for re-erection at Cockatoo Island ... Sydney in New South Wales. The Royal ... Navy had been created on July 10 1911 ... the *Warrego* was launched on April 4 1911 ... commissioned on June 1 1912, she can claim a ... place in the annals of the new Navy.

... Great War was to alter for all time the pattern ... our islands. When judged long term, the ... on the River Clyde was equally dramatic and, ...tionably, had a direct bearing on the ...tion of British shipbuilding when compared ... world output over the next 60 years. The short ... effect of the wave of patriotism was two-fold; a ... of the yards to meet the demands of war with ...sion work, ship repair and naval work looming ... the plans of shipbuilders, and then the loss ... the shipyards of experienced managers and ... men who were called to serve in their ... and reserve battalions.

In 1914 the Royal Navy ordered their ships from ... Royal Dockyards and from approved ... owned shipyards. This system was satis... in that the dockyards were assured of a steady ... similar work and maintained their tradition of ... by remaining efficient shipbuilders and at all ... keeping a skilled workforce employed and ... for use in emergencies. The private yards in ... higher quality bracket enjoyed the benefit of ... vessels being ordered when work loads ... uneven or slack, giving them a work cushion ... the ability to maintain a relatively unchanging ... of men in their labour force. Defence ... are often tighter and more closely monitored ... appear to the outsider and, at times, create ... by drawing off labour from lucrative short... merchant work and by introducing a double ... of workmanship in the shipyard. Overall, it ... apparent that shipyards with mixed naval and ... output on the Clyde have done well ...ially during most of the 20th century.

The gearing of the yards to meet war requirements ... in many cases, the appreciation that the style ... work would alter, that the proportions of different ... in the workforce would change and that ...precedented demands for specialised services ... suddenly appear. Early on, many passenger ... were brought in for conversion to armed ... cruiser, a process demanding detailed ... if speed were to be obtained. Such ...sions often involved removing accommodation, ... fitting of guns and appropriate stiffening, the ... of additional bunkers and the shipping ... of hundreds of tons of ballast. As the ... proceeded, the pattern on the river settled with ... shipyards like Beardmore's totally committed ... contracts, while others like Charles ... concentrating almost exclusively on the ... vital role of building vast numbers of easily ... and inexpensive cargo vessels. In this area ... & W Henderson were lead yard for the War ... A and B cargo ship designs which were ... for their efficiency and cheapness, but ... for their plainness which verged on the ...

The requirements for certain outfit trades became ... in shipbuilding during the hostilities, but other ... for these trades usually presented ... William Bow, the individualistic Paisley ..., was instrumental in the setting up of a ... facility, using joiners and others, for ... arms and legs for injured servicemen. Many ... arrangements whereby they made aircraft ... and in some cases were involved in munitions ... As the war progressed new types of ships were ... like X-lighters for troop landing, shallow ... hospital ships and specialised tugs, many of ... designs exhibiting originality stemming from ... working together of the Director of Naval ...'s staff and the ship designers of the ...'s merchant shipyards.

The tragedy for the shipyards, as for many other ... enterprises, was the short and long term loss ... Skilled men and able administrators ... fight in France and Mesopotamia, many never ... and few to return in time to assist the ... in its vital role. William McMillan, the ... and managing director of Archibald ... & Son Ltd of Dumbarton, fell while ... with the Argyll and Sutherland Highlanders ..., James Lithgow served with the Gunners ... being recalled for more appropriate duties at ... level with regard to ship production, and ... accompanied by members of almost every

Clyde shipbuilding family irrespective of role including directors, draughtsmen, tradesmen and helpers. For the experienced owner and director, many of whom were officers in the reserve, the decision to serve the colours must have been taken with great difficulty knowing that their friends already had responded to the call of Lord Kitchener, but also knowing that their shipyard, employees' families and localities required steady and unflinching management in times of stress. In the Second World War this decision was not left open to many as shipbuilding was designated a reserved occupation. However, the memorials and rolls of honour of many a Clyde shipyard carry the names of men lost overseas, mostly serving with the regiments which recruit traditionally in the West of Scotland—the Royal Scots Fusiliers, the Cameronians, the Highland Light Infantry and the Argyll and Sutherland Highlanders.

In the long term the loss was even greater. As the industry struggled in the inter-war depression it did so with an older and an ageing administration. It suffered also from lack of recruitment as many families were reluctant to encourage their more able youngsters to make a career in an industry with so many 'hungers and bursts'.

Submarines

Over a period of 70 years six Clyde shipyards have built about 78 submarines for service in the Royal and Commonwealth Navies. This is not a large number and pales into insignificance when compared with the hundreds which have been produced since the beginning of the century by Vickers of Barrow-in-Furness. However, submarine construction, particularly by Scotts of Greenock was almost continuous from 1912 to 1978, and ensured that a specialist submarine building capability with its strict regulations and conventions, remained alive on the Clyde through two wars. The numbers of submarine launched on the river are believed to be: Scotts' of Greenock, 44; Wm Beardmore, 15; Fairfield S & E Co, 10; Wm Denny & Bros, 5; John Brown & Co, 3; Yarrow & Co, 1. Several further vessels were cancelled around 1918 and 1919 and, of those built, a few were towed away for completion in the Royal Dockyards, principally Devonport.

The first submarine ordered in Scotland was *S1*, laid down at Greenock in 1912 and launched in February 1914. Scotts' had worked hard to obtain this business, having arranged a sole licence from the Fiat Company of Spezia to construct submarines of Italian design for both the UK and all British possessions. The Admiralty had ordered all previous submarines (around 80) from either Vickers or the Royal Dockyard at Chatham and had adopted a naming system of *A, B, C, D* and *E* classes prior to *S1*—the S presumably stood for 'Scotts''. Scotts' were granted considerable freedom in the design and building, as the Admiralty believed that there would be some advantage in comparing the work of a renowned shipbuilder, yet untried in submersible work, with the traditional approach of the more experienced submarine shipyards. The *S1* was small, being 148 ft 1½ ins (45.14 m) in length and displacing 324 tons submerged. Her speed on the surface was 13.25 knots driven by twin Scott-Fiat 2 stroke diesel engines and 8.5 knots submerged using battery powered electric motors. *S1* was followed by orders for two further vessels of the class and all three were sold to the Italian Navy in 1915 and saw little service with the British Forces. The overall cost of all three was around £200,000.

In August 1913 the Navy placed a fourth order with Scotts' for a new submarine named *Swordfish*. This new ship was only the second submarine in the Royal Navy with a traditional ship's name and was the first British steam-driven submarine. She had two propellers each powered by a single set of Parsons turbines running at 3,500 rpm and geared to reduce to a shaft speed of 530. Again her operational experience was short, but she increased submarine surface speed of 17 knots and paved the way for the steam 'K' Class which were to have a surface speed of 24 knots, well in excess of the then required 20 knots for vessels accompanying the British Fleet.

Of the 17 'K' Class submarines, four were built on the Clyde, *K13* and *K14* at Fairfield, *K15* at Scotts' and *K16* at Beardmore's in Dalmuir. These new ships were large being 339 ft (103.3 m) long and displacing 2,566 tons submerged. By the beginning of the First World War both Fairfield and Beardmore's had successfully built four 'E' Class submarines each and were adjudged suitable for being designated 'K' Class builders. However, the construction of these vessels was to tax the ingenuity and resources of the three companies.

The new submarines were impressive, indeed aggressive in appearance, and were comparable in size and almost in speed with current European destroyers. The main machinery, driving two screws, was two sets of Brown-Curtis steam turbines

using steam generated by two oil-fired Yarrow type boilers. Submerged the shafts were driven by four 360 bhp electrical motors, and as an innovation an 800 hp diesel engine was fitted, that in turn drove a dynamo to supply motive power for the short period after surfacing when the engineers were raising steam.

The first of the Clyde-built *K* ships, *K13*, left the Govan shipyard at Fairfield on January 29 1916 manned by a naval crew and several shipyard representatives, with a view to formal handover on completion of trials. During her third dive in the Gareloch the boiler room flooded and *K13* sank out of control in nearly 20 m of water. Four boiler room ventilators had been left open and, as a result, the ship was incapable of raising herself by the normal means. Thirty-one naval personnel and civilians died. 29 trapped at the aft end and two in an attempted escape from the engine room hatch. Forty-eight others were imprisoned in the fore end for two and a half dreadful days in cold dark and filthy conditions as attempts were made to pump air to the stricken ship and by this means elevate her bows to the surface. During this period the Captain of *K14,* who was aboard as an observer, attempted to go to the surface and was lost, and *K13*'s Commanding Officer was accidentally swept up during the attempt but saved.

Ultimately with hawsers from surrounding ships supporting the submarine her bows were raised and a hole was cut in her pressure shell and the 46 remaining survivors pulled clear. Among them was the Fairfield naval architect Professor Percy Hillhouse who, according to his fellows aboard, worked quietly with his slide rule and along with William Wallace, a director of Brown Brothers of Edinburgh, assisted the second in command in shutting all watertight doors before making their escape. *K13* went back to Govan for refit and ultimately joined the fleet as *K22*. Fairfield, in all, built only ten submarines and after the war their submarine berth and west yard were closed.

Denny of Dumbarton built five during the First World War, the last of the group *L54* being towed away to Devonport for ultimate completion in 1924. John Brown built three and Yarrows only one, the *E27*, completed in August 1917. It is surprising that these three companies with their tradition of innovative building and high class naval construction did not produce more than nine vessels of this type.

William Beardmore & Co Ltd built 15, the last two being HMS *Olympus* and HMS *Orpheus* both commissioned in 1930 and among the last ships to be launched at Dalmuir. *Olympus* and her sister were both to be lost in the Mediterranean in the Second World War.

With the closure of Beardmore's, submarine building effectively was carried out at four establishments: Scotts' on the Clyde, Vickers at Barrow, Cammell Laird of Birkenhead and Chatham Dockyard. About 25 years after the Second World War, Cammell Laird discontinued submarine construction, and in 1970 the policy decision was effected to cease the centuries long tradition of building in the Royal Dockyards—the last dockyard ship was the Portsmouth-built 'Leander' Class frigate HMS *Scylla.* This left Vickers and Scotts' sharing conventional submarine work and with Vickers responsible for all nuclear submarines.

The policy of increasing the British nuclear fleet submarine strength and the fact that the conventional 'Oberon' and 'Porpoise' Classes are efficient and adequate for our long-term needs has left Scotts' without submarine construction work for some years, and indeed, only refit work in very recent times. This is an unfortunate turn of events as it could lead to the unhealthy situation of only one submarine shipyard in the UK, and to the loss of submarine expertise on the Clyde, the very river which has the main Royal Naval nuclear base of Faslane and the United States nuclear base at Holy Loch.

* * *

The inter-war years were devastating for many parts of the United Kingdom but nowhere more than in the traditional steel and shipbuilding districts. The Washington Treaty and the run down in defence spending brought naval shipbuilding to a virtual standstill. The few fine ships built for the Royal Navy assumed a significance which reflected more their rarity value than their technical development. Designed and ordered during the Great War, the last great vessel to be completed for the Royal Navy before the moratorium on building commenced was the battlecruiser *Hood*. Launched in August 1918 at Clydebank HMS *Hood* was undoubtedly the greatest naval ship to be delivered from the Clyde between the two wars and, in the eyes of many, was amongst the four or five finest vessels ever to be commissioned into the Senior Service. Despite her sad end she was almost the ultimate in the big gun capital ship, being

Chapter 7

The cradle of steam navigation

The shipbuilding traditions of Greenock and Port Glasgow stretch back at least two and three quarter centuries and within their bounds there have been at least 90 shipyards in that period accounting for over 20 per cent of all shipyards in the Clyde area. On close analysis over half these shipyards operated for less than ten years, some were in fact 'one ship' yards, others scratched a poor living from the Greenock waterfront which had seen many business ventures come and go. Despite the transient nature of many of these businesses nothing can dim the achievement of the Inverclyde area in producing Europe's first steamship, in having the oldest shipyard in the world and in producing an abundance of ships as diverse as West Indiamen and submarines, pilgrim ships and four-masted barques or light cruisers and VLCCs.

As the known Clyde shipyards are listed in the Appendix there will be no need to list every shipyard in this chapter but the names of the earliest are worthy of recording. These early yards bore no resemblance to current shipbuilding establishments but were small riverside sites where a family and their associates and a few employees constructed small, wooden ships for fishing or for the coastal trade:

John Scott, later Scott's S & E Co, founded 1711 (now Scott-Lithgow)
S. Halliday, Westburn W, Greenock, 1740-60
MacPerson & MacLachlan, Bay of Quick, Greenock, 1740-60
Porter & Morgan, Westburn W, Greenock, 1740-60
James Munn, Westburn W, Greenock, 1760-1820
John Wood & Co, Greenock & Port Glasgow, 1780-1853
Steele & Carswell, Bay of Quick, Greenock, 1796-1816
Love, Greenock, late 18th century

The busiest period in the towns was from 1860 to 1880 when at least 34 yards operated sometime during that 20-year spell. To obtain a clear perspective on the development of the various businesses it will be sufficient to consider only seven or eight companies as their histories reflect the growth of the towns and the industry in the area. John Wood, the builder of the *Comet*, has been discussed elsewhere in this volume.

The Greenock yards

Pride of place in all shipbuilding narrative must go to the Scott's of Greenock, a company which commenced trading in 1711 and with an unbroken succession of family directors was managed despite a series of different names through until 1969 when the merger was effected with Lithgows Ltd of Port Glasgow. During this period the population of Greenock had risen from around 1,500 to close on 80,000 at the time of the merger, and it can be inferred that Scott's workforce grew at an even greater rate than that. The company commenced at Westburn East to the West of Greenock and with additions and changes over the years found in 1934 that they were operating the Cartsburn Dockyard and adjoining Cartsdyke West Yard as well as Cartsdyke East which was separated from the main business by the Greenock Dockyard Co Ltd then occupying the intervening Cartsdyke Mid Yard. In an unusual and original exchange agreement the Greenock Dockyard moved east and Scott's took the Cartsdyke Mid Yard giving them for the first time in over 200 years a continuous river frontage.

From the beginning Scott's have built ships and tried new ideas well in advance of other establishments. They opened the first graving dock in 1767 and again had a first in 1806 by launching the *John Campbell* fully masted and rigged. In 1815 they

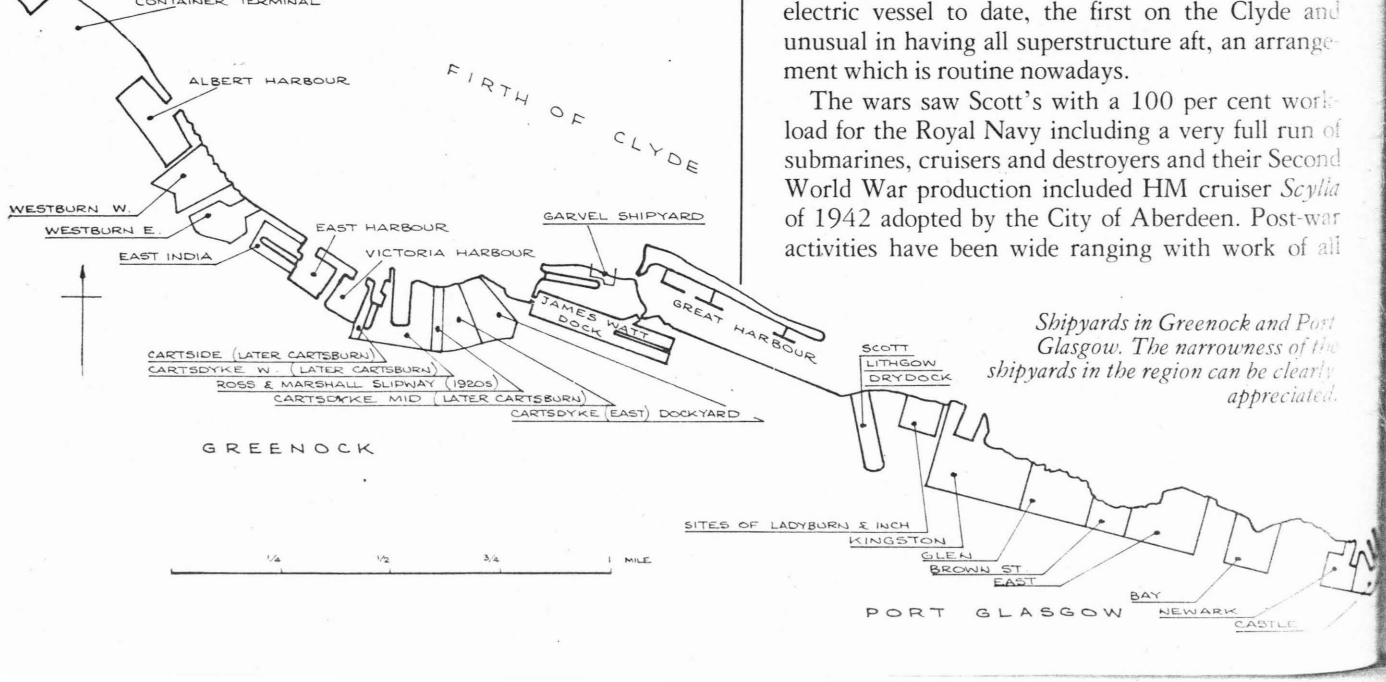
produced two paddle steamers *Active* and *Despatch* of 59 and 58 tons respectively and in 1819 made history by building the PS *Talbot*, the first ship with feathering floats. During this period all machinery had been purchased from the Napiers or from James Cook of Tradeston, Glasgow, but in 1825 the iron and brass foundry of William Brownlie was purchased by Scott and trading under the name of Scott, Sinclair & Co began the long history of marine engineering within the group. In 1859 the name was changed to the Greenock Foundry and in 1904 it was absorbed into Scott's S. & E. Co Ltd. Two particular milestones are important; the building of the iron screw frigate HMS *Greenock* for the Royal Navy and the Blue Funnel Liner SS *Agamemnon* for Alfred Holt & Co of Liverpool.

The frigate to be named *Pegasus* was ordered at Greenock in 1845 and broke new ground by being of iron and screw propelled as, until then, this mode of construction and means of propulsion were novel in the Navy. Iron in particular created problems in larger ships owing to compass deviation created by the inherent magnetic field within the ship's hull. The work of Sir George Airy, later Astronomer Royal, had solved the major problems and iron became an acceptable material for the Queen's ships. The name of the frigate became *Greenock* before her launch in 1849 and ultimately she sailed with twin-cylinder horizontal geared steam machinery, as in the *Great Britain* built a year or two earlier in Bristol, the propeller speed was stepped up from that of the machinery.

The SS *Agamemnon* and her sisters *Ajax* and *Achilles* were built of iron in 1865 and 1866 and for the time were of considerable size being 309 ft (94.2 m) in length bp, 38 ft 6 ins (11.7 m) breadth and 29 ft 8 ins (9.0 m) in depth. Alfred Holt felt that with increased thermal and mechanical efficiency of engines, ships on long hauls with sufficient capacity for bunkers and an economic cargo could break even and end the monopoly of sailing ships on the Far East trades. The three ships proved immensely successful and the timely opening of the Suez Canal enhanced their value. The machinery which proved so invaluable was of tandem compound design with the high pressure cylinder under the shaft and the low pressure above. To even out the working of the engine a massive flywheel was built on to the crank-shaft. Within 16 years the SS *Aberdeen* was to follow from Napier's at Govan with triple expansion machinery and the marine steam reciprocating engine had come of age.

From then on there was a wide range of work which included building for the Royal Navy, John Swire's China Navigation Co and Alfred Holt & Co, all of whom had long lasting relationships with the company. Many vessels were built for service on the Yangtse River. The four-masted barque *Archibald Russell* was completed as late as 1905 and the following year the first submarine depot ship, HMS *Maidstone*, was delivered, incorporating revolutionary ideas for the time including repairs facilities, stores, services and accommodation for submarine relief crews. In 1928 another 'first' was scored in the building of the tanker *Brunswick*, the largest diesel electric vessel to date, the first on the Clyde and unusual in having all superstructure aft, an arrangement which is routine nowadays.

The wars saw Scott's with a 100 per cent workload for the Royal Navy including a very full run of submarines, cruisers and destroyers and their Second World War production included HM cruiser *Scylla* of 1942 adopted by the City of Aberdeen. Post-war activities have been wide ranging with work of all



Shipyards in Greenock and Port Glasgow. The narrowness of the shipyards in the region can be clearly appreciated.

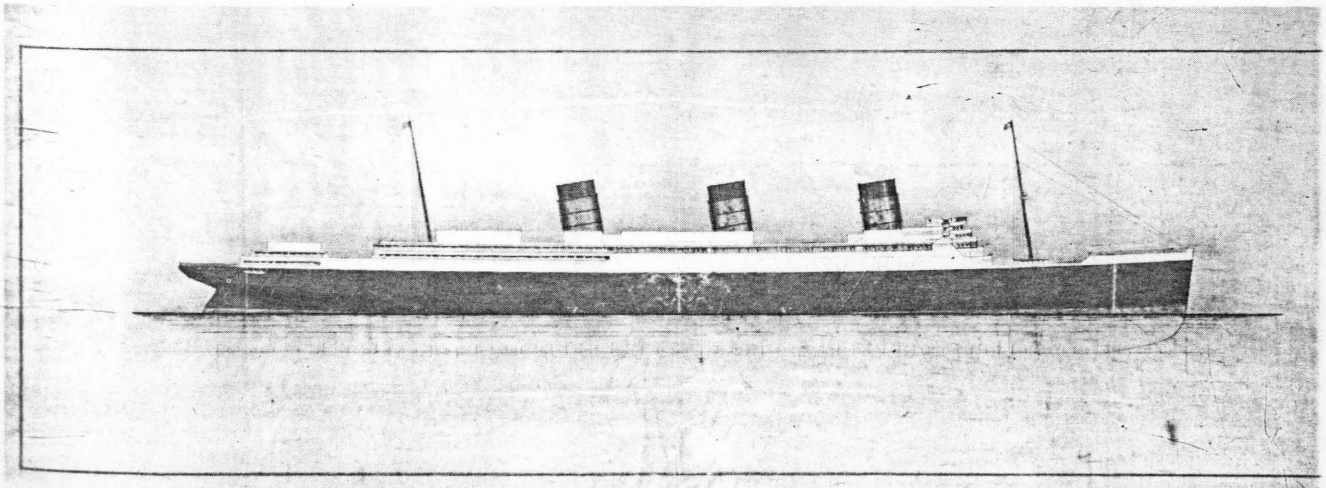
Chapter 10

The shipbuilding process

No information brings as much pleasure to the workforce of a shipyard as confirmation that an order has been placed. Equally, nothing can be more irritating to senior staff than to hear this vital news from sources on the 'shop floor' and to have it authenticated shortly after by an official statement. It is difficult for people close to the chief executive not to be aware of the likelihood of an order and there is a great temptation for people with close friends and relatives in the yard to make optimistic remarks in their company. The short-lived Fairfields (Glasgow) Ltd did try to combat this and to prevent rumours spreading in the shipyard by a clearly laid down briefing system with the chief executive meeting senior managers and giving them material for dissemination and they, in turn, meeting a group of deputies, and so on, until within a couple of hours several thousand people were aware of company news or important changes in policy.

The placing of the order is usually the climax of a carefully orchestrated sales and marketing drive. The serious way in which this is treated is a reflection of the importance which a large contract can have on the well-being of possibly thousands of people, their families and also the locality. Throughout the years the aggressive approach to selling ships has not changed, only the handling of some aspects of the technique. Gone are the days of the travelling chief executive with his personal ready reckoners designed to enable him to give budgetary costs to likely clients. The introduction of marketing, of large sales teams and of excellent communications have made selling more positive but much tougher. Instead of ship owners being visited and asked if there is a likelihood of work arising, now they are given helpful suggestions as to a good pattern of purchasing with the potential shipbuilder stressing his speciality and proposing vessels which can be fitted into his forward building programme.

The proverbial story of the designing of a ship on the back of a dinner menu card is seldom true but on rare occasions flashes of old worldly business techniques are seen, as exampled overleaf by a letter received by a Glasgow shipbuilder just after the Second World War from Liverpool shipowners:



Original profile proposed in 1928 for the new Cunard North Atlantic liner. The classic outline was retained through all design processes, with the exception of the counter stern which was discarded in favour of the cruiser stern, giving more accommodation and a longer effective waterline (National Maritime Museum).

Dear Sirs,
We shall be obliged if you can build us one cargo vessel, similar to those previously supplied to us by yourselves, and to your usual high standard. Terms and delivery to be agreed mutually.

Yours faithfully,

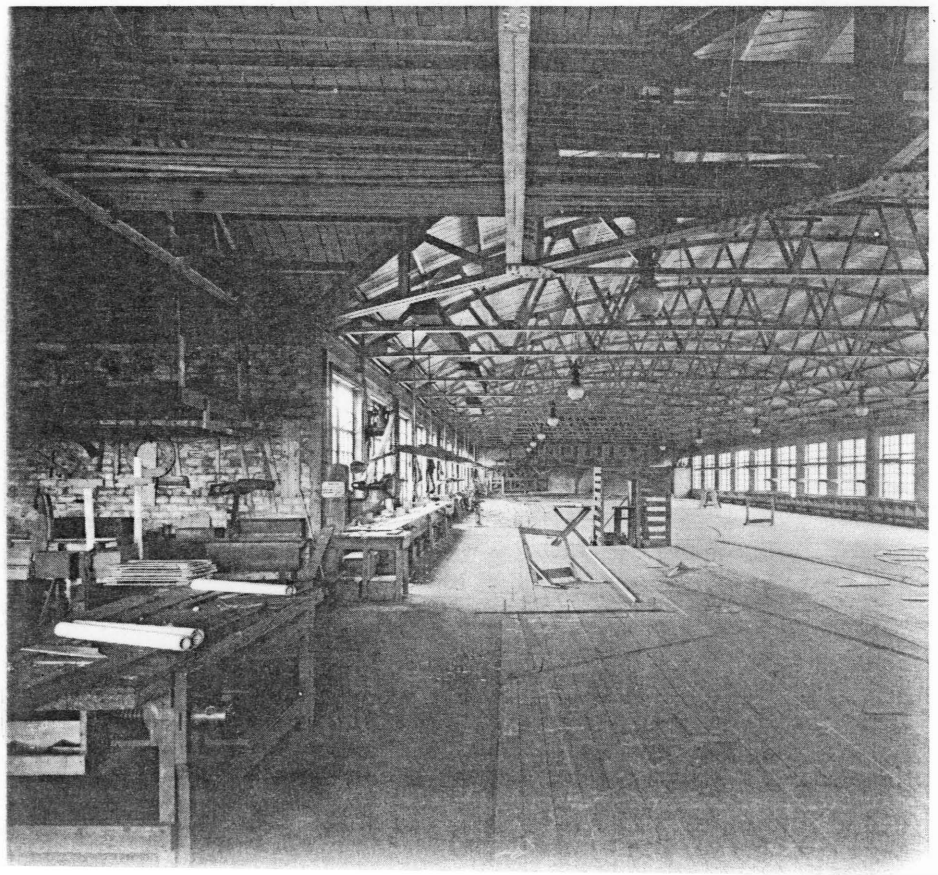
Changes in technology make such things unlikely in present day conditions but when one examines the diaries of 19th century shipbuilding masters like Robert Napier one sees that, even then, orders went to those who made the opportunities.

The first stage in the shipbuilding cycle is the issue of the lines plan to the mould loft. Here, traditionally, on a floor on the top of a building the lines of the ship already designed in the drawing office are laid out full size on the loft floor. The floor is often painted black and the lines drawn in with chalk. Once the loftsmen are satisfied that the lines are 'fair' or true and sweet in every direction, a body plan of sections of the ship is drawn full size on a special board, and these lines then gouged or scrieved to preserve them for all time. This board becomes the master dimension control and from it all yard templates are prepared.

In modern times this has been superseded by the mould loft working to one tenth full scale and, even more recently, by computer with great savings in time, labour and space.

The Planning Office has become the key to modern shipbuilding production as the industry is, by and large, one of assembly. With the exception of steelwork and joinerwork almost every other trade is involved in assembling bought-in components to such an extent that few items on the new ship are manufactured in the yard. The Planning Manager and his staff ensure that each item is purchased at the right time, that delivery is on schedule and that to meet the programme of building the yard has sufficient labour at each stage in the construction. This may sound straightforward but it rarely is owing to unforeseen exigencies like late deliveries of parts and to the overriding requirement of keeping several other ships up to-date on the programme as well.

One of the world's most complex planning exercises was that required for the United States Polaris programme of the 1950s. To ensure very widely separated groups were on target, or at least meaningfully monitored, a new system of manage-



Left *The mould loft at Clydebank around 1910. This photograph shows clearly the lines and sections of a ship drawn out full size on the floor. With the advent of first, one tenth size lofting, and second computer techniques, the need for full size sketching and simulation is practically gone.* (National Maritime Museum).

Above right *Construction of the fast cargo liner* Benledi *at the Scotstoun shipyard of Charles Connell & Co (Shipbuilders) Ltd in October 1964. The P & O Tanker* Opawa *built by Barclay, Curle & Co Ltd can be seen outfitting at the North British Quay.*

Right *The steel stockyard of John Brown and Co Ltd, Clydebank, around the beginning of the 20th century. The neatly laid out area is typical of most shipyards of the period, with the plates weathering to loose all traces of millscale. With modern techniques of shotblasting, the need for prolonged weathering is not so important, and with modern craneage using either suction pad lifts or magnetic pads, most plates are stowed horizontally* (National Maritime Museum).

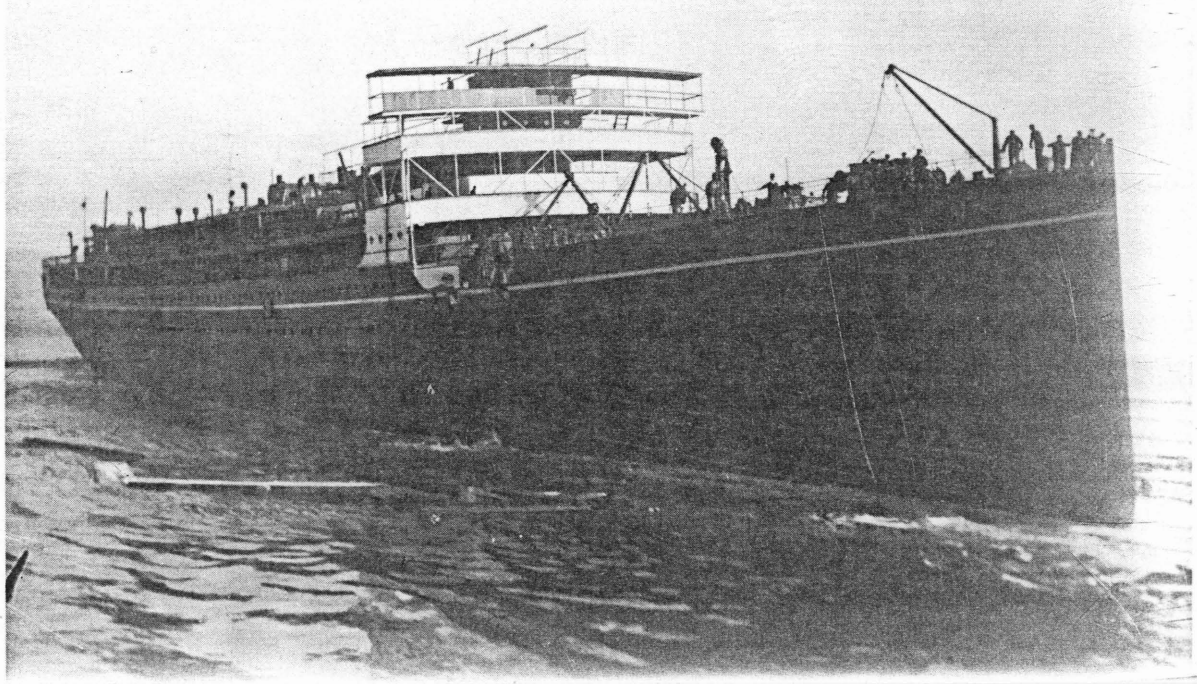
ment control was devised by a management consultancy company in the United States of America. This was known at the time as Program Evaluation & Review Technique (PERT), but is now universally known as Network Analysis. In 1963 this technique was applied to the outfitting of the Bibby Liner *Lancashire* at the Fairfield yard and the exercise was supervised by a team jointly recruited from Fairfield and the British Ship Research Association. The results were interesting in that the ship was completed well on schedule and without difficulty but, as was quickly realised, the foremen and junior managers paid special attention to this 'one-off' in the middle of a normal building programme. Network analysis did not become a permanency in shipbuilding being tried in Aberdeen, Elsinore and other places and ultimately discarded—but it did awaken management to a new way of thinking and added phrases like 'critical path' to the modern manager's vocabulary.

The first stage of construction is known as preparation. Here all plates and sections are shot-blasted clean of rust and millscale and then, after being painted with a metallic primer, are marked, cut and bent into their final shape for assembly in the ship. In modern shipyards this is almost automatic with all processes being carried out on cold steel by hydraulic machinery. The use of semi-automatic shot-blasting equipment capable of removing mill-scale ensures that steel need not be left in stockyards longer than is convenient for the yard.

The second stage of construction is known as fabrication. This concept has been attempted in various ways for the best part of 100 years, but was accepted on the Clyde in 1933 during the construction in Dumbarton of the Diesel Electric Paddle Ferry *Robert the Bruce*. This ship was probably the first all-welded ship built in Scotland and it was quickly realised that welding was cheaper and more effective if done by the operative in a 'down hand' position. Each deck was built separately, turned as necessary to accommodate the welders and then erected. The ship was a great success and from this early experiment a new technique developed which is still improving to this day.

The final steelwork stage is erection on the berth. Here dramatic changes have taken place. Instead of the laying of keel plates and keelsons, the erecting of frames and a generally piecemeal building of a ship, large parts—often up to 100 tons—can be placed on the berth and the edges carefully merged or 'faired' into the next to give the shell its required smooth appearance. Lithgows Limited at Kingston have built very large ships by commencing laying stern units at the water's edge and slowly moving their crane up

Launch of the P & O Liner Malwa *from Caird's of Greenock, 1908. The Greenock Yard built two such liners every year, as well as other work, and were the main builders for P & O for many years* (National Maritime Museum).



the yard as the steelwork nears completion. However, no Clyde yard has copied Burmeister & Wain of Copenhagen who developed 600-ton units in 1960 and built ships with them in a dry dock designed for Panamax bulk carriers. During the building of the Baltic passenger ferry *Bornholm* they must have reached the ultimate in this form of construction in 1961 when the ship was constructed using only six main hull units.

On the berth the ship must be inspected and the watertight tanks pressure tested and, prior to launch, all main structural parts carefully checked to ensure the ship is strong enough for the severe stresses induced during launching.

The steel trades

Briefly the steel trades are those directly connected with the building of the structure of the ship. The past years have seen a vast reduction in the numbers of these trades with certain skills becoming obsolete and other trade groupings merging. The oldest trade is that of shipwright. Current members of this group can claim descent from the wooden shipbuilders of previous years. Their responsibilities are in general the erecting of large parts of the ship, in aligning the units, launching and certain aspects of outfitting including the laying of wooden decks. Closely associated are loftsmen, the men who draw out the ship either full size or in reduced scale in the mould loft and who also are responsible for sighting and alignment.

Platers are the men who mark, bend and generally shape plates, who construct small fabrications and are responsible for the 'fairing' of plates which is, as a well known Clyde shipyard director described it, a euphemism for brutally forcing the edges together. Despite the joke at the platers' expense it is a technique requiring skill and knowledge.

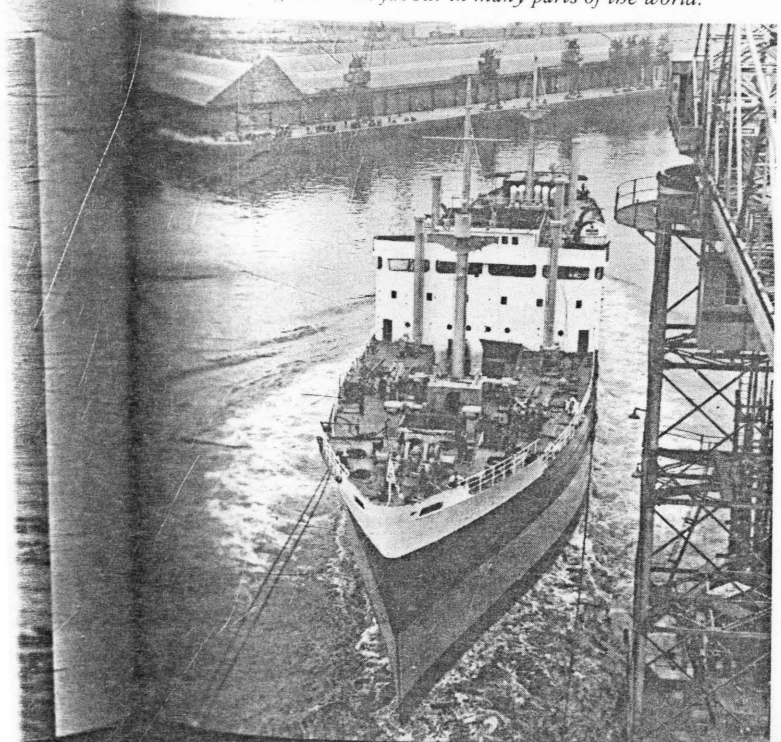
The welders are a newer trade, only fully recognised less than 50 years ago—they have the task of bonding steel together using electric welding, by hand tongs, by superintending automatic processes such as panel flow lines, or by using semi-automatic hand feed machines.

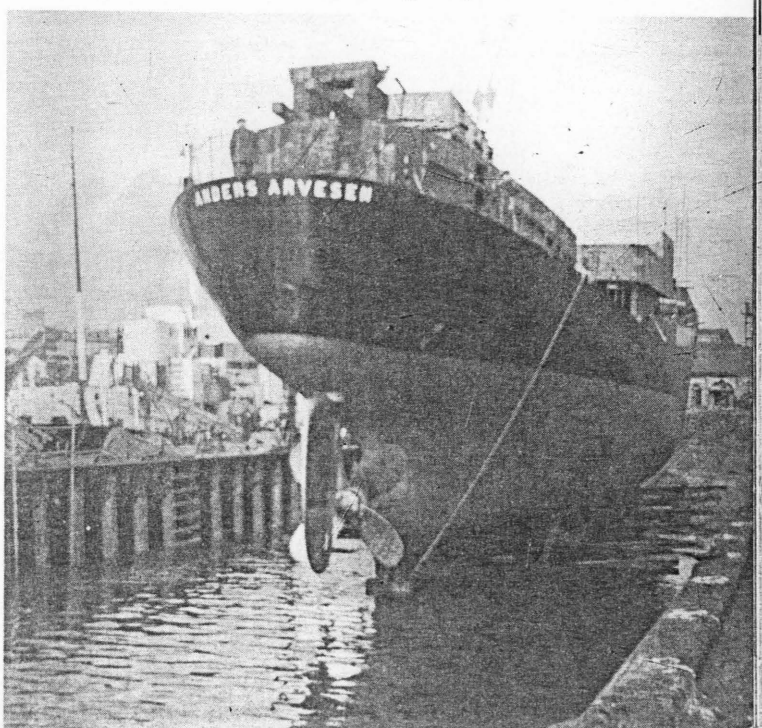
The riveters, once princes of the river, have gone, and any small jobs using this technique are carried out by squads who also burn (cut with oxygen and gas), drill and caulk (chamfer and cut with pneumatic hand tools).

Riggers and blacksmiths, both greatly reduced in

Below *Harland & Wolff Ltd, Govan, launch the Motor Vessel* Thessaly *on May 29 1957 for the Royal Mail Lines. The angle to the centre line of the river is clearly visible: this alignment allows ships a longer unobstructed run* (Furness Withy Group).

Below right *The whale catcher* Anders Arvesen *being neatly winched down the slipway of Inglis' Pointhouse Shipyard in August 1951. Some ships were launched in a conventional manner into the mouth of the River Kelvin, others by the use of their 'marine railway', a system coming back into favour in many parts of the world.*





numbers, make up this group and are all members of the Boilermakers' Society.

Among the important semi-skilled men attached to them are the stagers who erect the staging or scaffolding around a ship and whose function is to ensure that every workman has good, safe and well guarded access to any job he is called on to perform.

Launching

George Blake's epic novel *The Shipbuilders* opens with a description of a Clyde launch day. The colour and excitement is vividly portrayed of the preparations and ceremony for the naming and launching of the fictitious *Estramandura* but, sadly, the book goes on to describe the consequences and effects in the yard and its workforce as it becomes clear that there will be no possibility of further work.

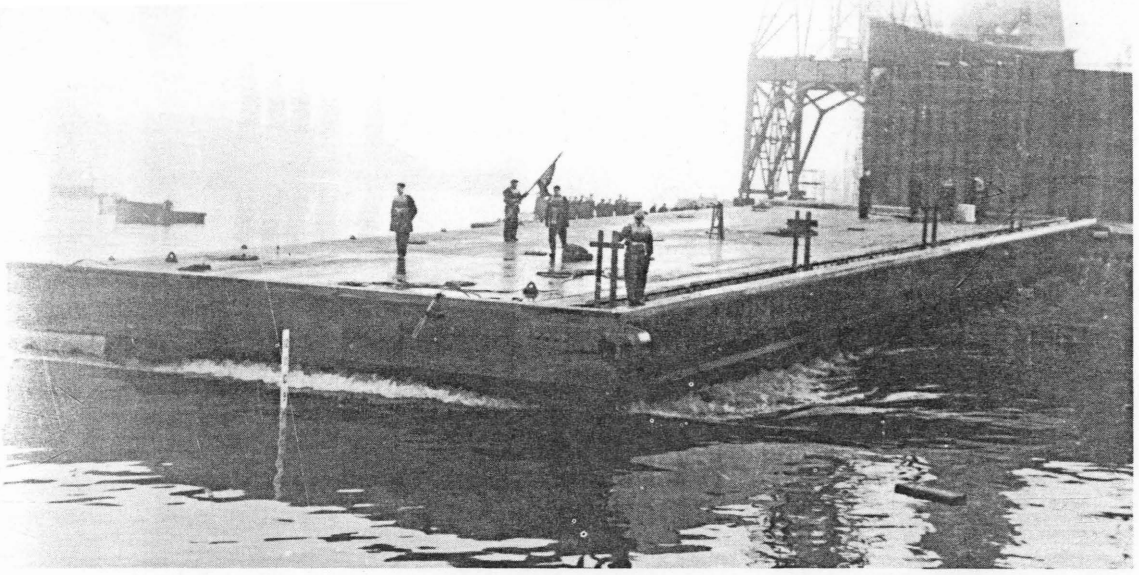
The launch day is one of the most important stages in the construction calendar of a ship. It is often the one time that the Boards of Directors of the two contracting companies meet in what is to be hoped is a relaxed atmosphere, entertain their guests and quietly assess their mutual involvement. In earlier years it was the day on which a substantial stage payment was made to the builders (sometimes up to 33 per cent), and even in modern times with changed patterns of cash flow is a recognised moment in the financial contract. After many a successful launching a cheque is handed by one director to another in a discreet but nevertheless formal manner on the launch platform.

The traditions and conviviality of launch days go back centuries—in fact from earliest times men have regarded launching as important, requiring that the new ship on which they have invested time and money, and on whose performance the lives of their associates, their families and themselves may depend, will enter its element under the most propitious circumstances. Such age old customs and superstitions which are now being researched are not fully understood, nor well documented, but come from times long before the Clyde was a navigable river. In Scotland traditional arrangements are relatively simple: the ship has a brief naming ceremony, usually performed by a lady sponsor invited by the ultimate owners, a bottle of wine or other beverage is broken on the bows and the signal given to release the ship from her ways. The sponsor often receives a gift of jewellery and, as in many commercial transactions, the value of the gift may be commensurate with either the first cost of the ship involved, or reflects the importance the shipbuilders attach to the friends of the lady concerned. At the launch of the *Queen Elizabeth 2*, Her Majesty the Queen was presented with a speedboat for the Royal Yacht *Britannia*.

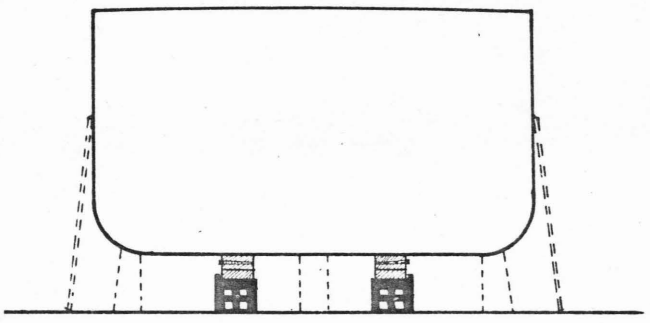
It is unusual on Clydeside for the launching to be preceded by a religious service, although recently more and more well known owners request that this be done. Some overseas owners bring priests of religions other than the Christian faith to bless the new ship. The Royal Navy have a short but moving service laid down for use before the launching of one of the Queen's ships, ending with the Sailor's Hymn and all presented in a standard order of service—spoiled only by the unimaginative printing of the MOD form number 'D10' on the front page! For naval ships the wine used is invariably from the Commonwealth, and on this one occasion the shipyard has the privilege and duty of dressing the ship with naval flags—the Union Flag on the jackstaff, the Lord High Admiral's Flag on the main mast and the White Ensign at the stern. It is customary for no other flags to be used on such days.

In merchant launches the flag etiquette is different. The ship at that stage belongs to the shipbuilder and is therefore to be launched with the Red Ensign at the stern, the white bordered Union Flag (or Pilot Jack) at the bow and the shipyard houseflag on the mainmast. It is usual to wear the future owner's national ensign and his houseflag at the courtesy position on the foremast. Prior to the launch the name and port of registry of the ship have to be decided, and British ships require to have this checked out and approved by the Registrar General of Shipping and Seamen at Cardiff. The British Registry does not encourage closely similar names and, indeed, severely discourages identical names except in special circumstances.

The whole procedure marks a happy event and the small courtesies on the occasion come about as much by thoughtfulness as by a rule book. On April 16 1953 one simple courtesy was extended by Stephen's and their clients, the Greek Line, when it was discovered that their new liner required the same tide for launching as the Royal Yacht. In order to give precedence to the Queen and her yacht, it was agreed that the 17,000-ton liner be known and launched as Ship 636 and that only later be known by her name, which was to be *Olympia*. At the time of the launch it was said on the Clyde of 636 that 'the Greeks have a name for it!'



Above *An unusual launch at Fairfield in 1962. The dock gate for the Firth of Clyde Drydock, then under construction. The gate was floated to Greenock and then hoisted into her position at the dock entrance and sunk.*



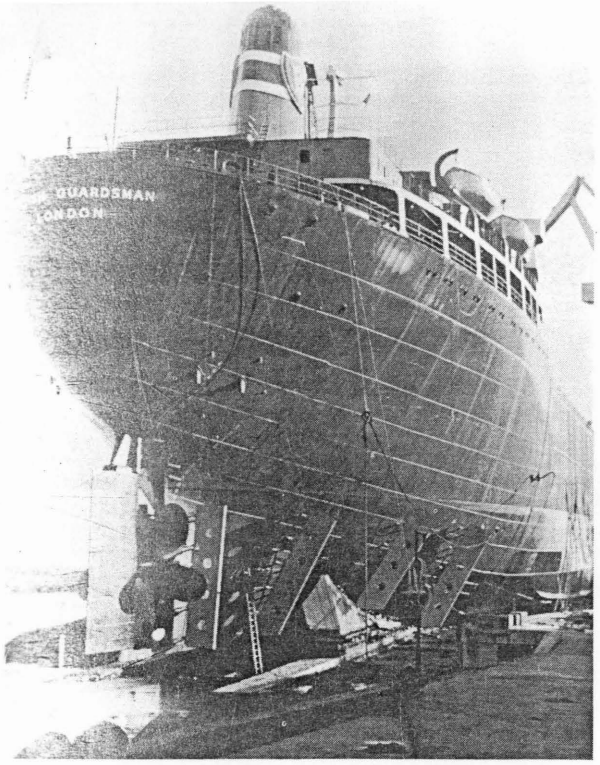
Right *A diagrammatic section showing the standing and sliding ways under a ship on the building berth. Usually the ways are spaced about one third of the ship's breadth apart, and some hours before the launch take the weight of the ship once the long wedges in the sliding ways are 'rammed up'. Side shores, bilge blocks and keel blocks all shown with dotted lines are removed prior to the launch. The sliding ways often stay under the ship after launching and have to be carefully pulled clear and then every one accounted for.*

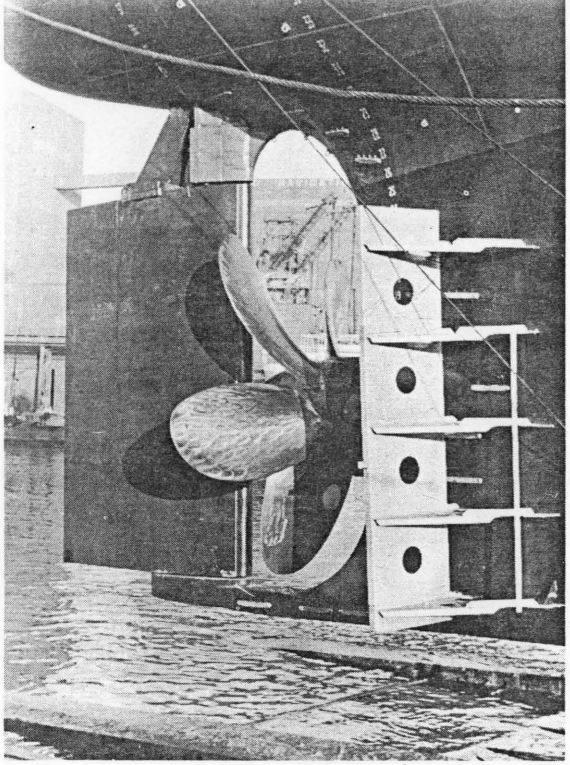
In recent times, owing to the expense of bringing foreign guests to launch days, many companies hold launching ceremonies on the same day as naming ceremonies for sister ships launched without formality on other occasions.

The practice of launching is a well tried and proven technique with clearly understood principles. Before construction the position and height on the berth have to be ascertained and the safety of the launch assured by preliminary calculation. When building has commenced the standing ways or fixed part of the slides are laid under the ship and the top surface coated with a proprietary material which is heated, poured over and allowed to cool and form a solidified smooth surface. On top of this a soft lubricant is applied and then the sliding ways run in to form the base of the cradle on which the ship rests.

On top of the sliding ways timber 'make up' is fitted coming to the underside of the ship and on this the weight of the ship will rest once it has been rammed up before the launch. Just before the launch all other shores, blocks and so on are removed and ultimately the ship will stand free, held from sliding only by two daggers or triggers on each side. The design of daggers varies from yard to yard, but two main forms are used—the first a system of complex bell crank levers, eccentrics and weights which when freed lowers a lip on the standing ways and frees the sliding ways above. The second is a very simple set of two timber baulks so positioned that while one is held immovable by a wire anchored to the ground, the second is in compression between the standing and sliding way. The second system, while simple to a point of absurdity, has the added advantage of being foolproof.

On release the ship slides backwards into the water travelling in some cases faster than she ever will again. Stopping is effected in different ways; by drags, that is bundles of chain which progressively exert a greater frictional force as the ship moves away, by





Above *The BP Tanker* British Guardsman *prior to launching at the Fairfield shipyard in December 1962. The water brakes to slow her in the river can be seen temporarily fitted at the aft end.*
Above right *A close-up of launch water brakes fitted on the tanker* British Guardsman.

Stephen's employed Francis Elgar to represent their interests and he rightly said that previous to the accident no curve of stability had been constructed for a merchant ship at launch.

The results of this disaster were many: ships had their positions of centre of gravity estimated before launch, and provisional stability particulars worked out, all weights aboard were assessed, evenly distributed and secured, and the numbers of men aboard limited to those necessary for the mooring and post launch examination of the ship. The stringent Clyde regulations were tightened and other ports introduced similar arrangements.

The *Daphne* was renamed *Rose* and within a few months of delivery was sold. Her high, powerful engine was removed and a smaller and lower one of half the power purchased from marine engineers in Dundee.

Since the *Daphne* well over 20,000 ships have slipped into the Clyde and, while minor incidents occur from time to time, injuries to persons and damage to ships have been negligible. Indeed the planning of launches has become such a fine art that the final position of large ships on the river can be foretold with great accuracy, as in the celebrated case of the Cunarder *Queen Mary*.

The greatest effect of the disaster was on the attitude of shipbuilders. The concept of ultimate responsibility for their product was brought home and from 1883 even quite routine and mundane shipbuilding practices were questioned and subjected to the scrutiny of scientific analysis. The *Daphne* incident can be taken as the coming of age of shipbuilding in the United Kingdom and the time when builders realised that their judgement was ultimate in the question of design.

The outfitting process

This name is given to the process which changes a bare steel hull to a ship fully equipped and outfitted for sea. It can be complex work made difficult on smaller ships by large groups of men having to work simultaneously in every compartment. The task of the outfit manager or the ship manager in charge of the vessel is an onerous one as he has to ensure that each compartment and system is finished in the correct sequence and that the long programme of tests leading up to trials is kept on schedule.

The main trades involved in outfitting include the

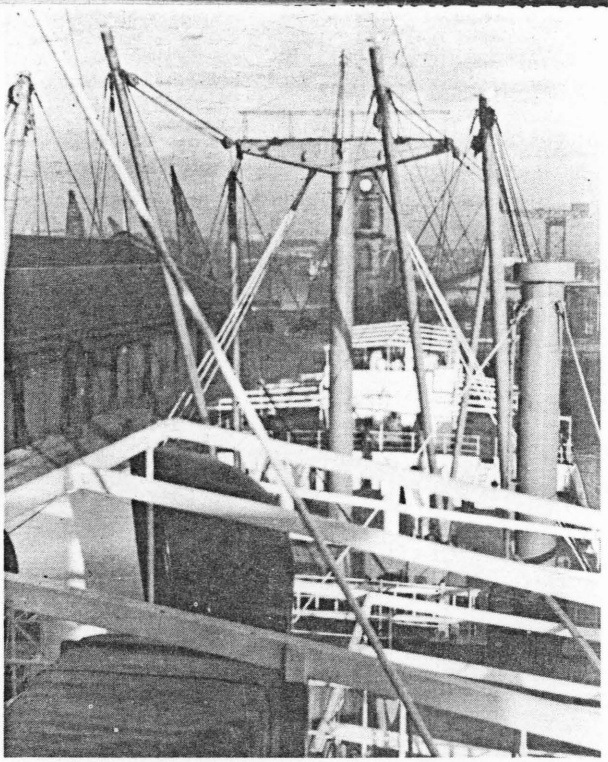
Above left *John Brown's blacksmith shop in the early part of the 20th century. The basic tools have not changed much since then, although with the introduction of high tensile steel into lifting gear and the simplification in shipbuilding practice, the need for smithwork has greatly reduced* (National Maritime Museum).

Left *For some Clyde shipyards, outfitting after launching was a particularly heavy burden as they did not have outfit quays of their own. The SS* Benlomond, *shown here in 1957, is a case in point, lying in Queen's Dock, Glasgow mid-way between the shipyard of Charles Connell and the engine works of David Rowan.*

Above *The good name of a shipyard is associated with the standard of finish in the accommodation. No effort is spared, especially in passenger liners, to ensure the highest standards are maintained, as in this Grill Room in John Brown's* Aquitania (National Maritime Museum).

painters whose main role is the finishing of accommodation and other parts to a high standard. They are associated with the redleaders, the semi-skilled section of their department—men who have not served apprenticeship and whose responsibility is the painting of steelwork, the coating of double bottom tanks and so on. Their name comes from the days when red lead was a commonly used preservative.

Pipeworkers form a large group, nowadays composed of plumbers and coppersmiths. Working from the plans they measure on the ship, prepare pipes in the pipeshop and finally fit up the massive and complicated systems now required on the modern ship. The pipeshop, particularly of modern layout, is eminently suitable for dealing with non-marine contracts and, indeed, large shops like that at Govan have often worked in petro-chemicals and occasionally at supplying pipework for other shipyards.



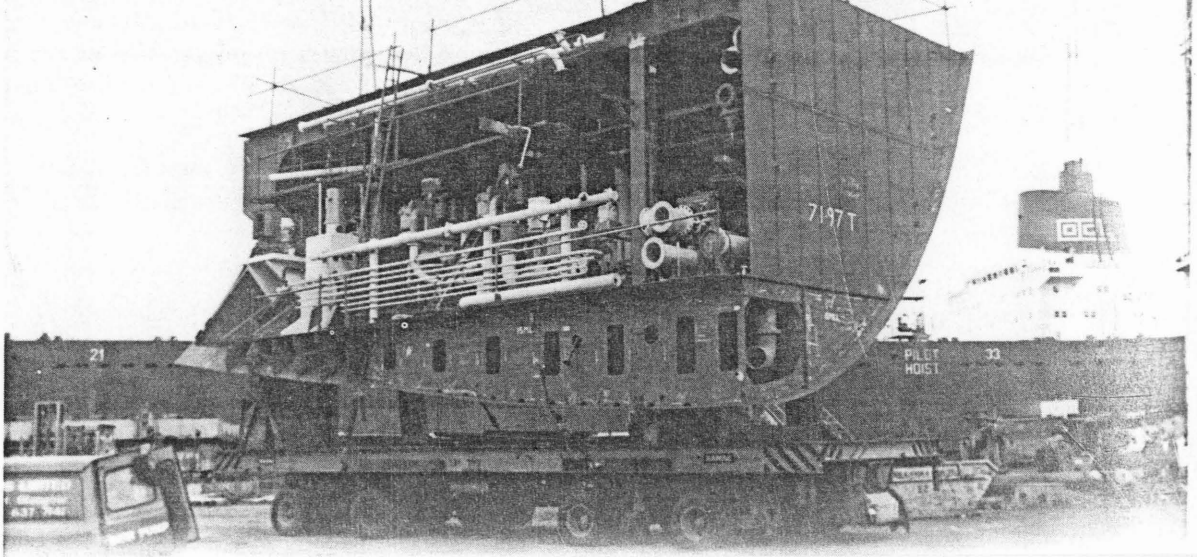
Left *This view from the top bridge of MV* Elysia *gives a clear indication of the large amount of rigging and deck outfitting work required on a conventional cargo vessel. The* Elysia *was built in 1945 by Lithgows Limited, Port Glasgow, and was powered by a Barclay, Curle-Doxford diesel engine. She served the Anchor Line for many years on both their New York and Bombay routes, with Yorkhill Quay, Glasgow (pictured here) as her base.*

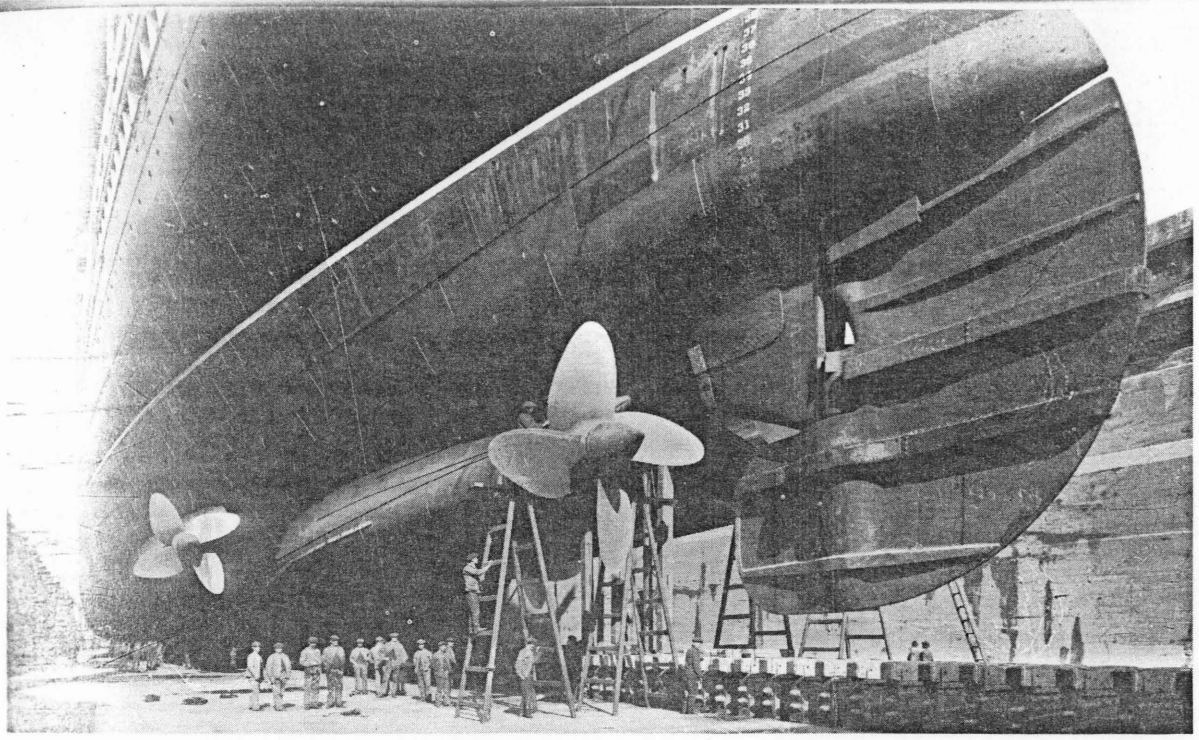
Below *A 72-tonne unit about to be erected on a new ship at Govan. The detailed outfit can be seen clearly, and will assist in ensuring that the ship is built as quickly as possible on berth. This technique has been developed specially in Govan* (Govan Shipbuilders).

The joiner's work is by far the most impressive part of the whole process. Their skill changes steel lined spaces into elegant lounges and dining rooms, and using carefully selected timbers can make even small cabins warm and restful. Their work is very different from the shore joiner or shopfitter in two respects: first the standards in general are much higher, comparable with those required of cabinet makers ashore and, second, the ship outfitter has to be able to work allowing for deck sheer and camber. In recent years it has been customary for loose items of furniture like tables and chairs to be brought in from companies like Rowan & Boden and in very large ships like Cunarders and union Castle Liners to sub-contract parts of the public rooms to specialist firms like Archibald Stewart of Glasgow.

Attached to the joiner's shop are french polishers with spray booths and advanced equipment to aid their professional skill. To a lesser extent every year one finds modelmakers capable of making the half block models once necessary in the drawing offices and the beautiful finished models seen in board rooms, head office windows and ultimately in museums. Lastly the upholsterers, once an integral part of the shop, have all but vanished from British shipbuilding.

The last main group are electricians, or 'sparkies', whose responsibility has grown vastly in recent years. They were introduced to most yards in the 1900s while some companies, including Charles





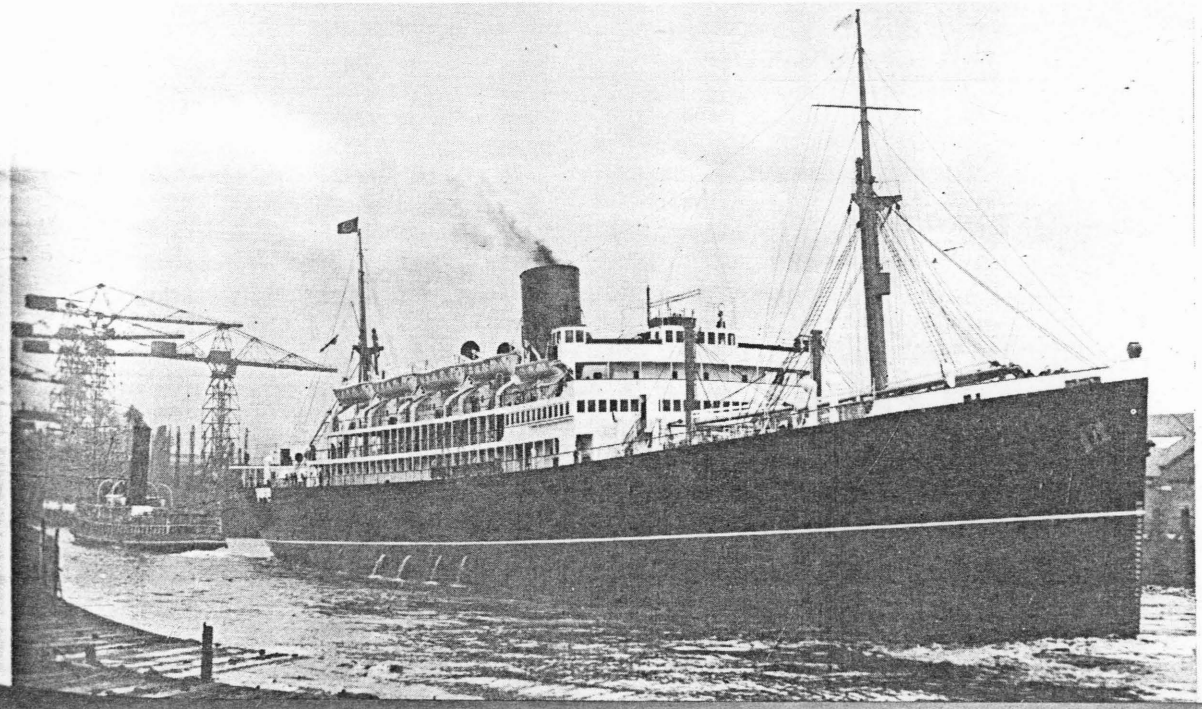
Above *The massive rudder, propellers and sternframe of the QSS* Aquitania *pictured at her first drydocking, in 1914. The work at first drydocking includes cleaning and repairing the paint on the undersides prior to applying a fresh coat of anti-fouling paint. The propellers are examined to enable the ship to produce the best results possible on the measured mile* (National Maritime Museum).

Below *Attended by the tug* Paladin, *the Anchor Liner* Circe, *resplendent in new paint, leaves Govan for her trials in the Firth of Clyde.*

Connell, did not have ship electricians and subcontracted their work out to other firms.

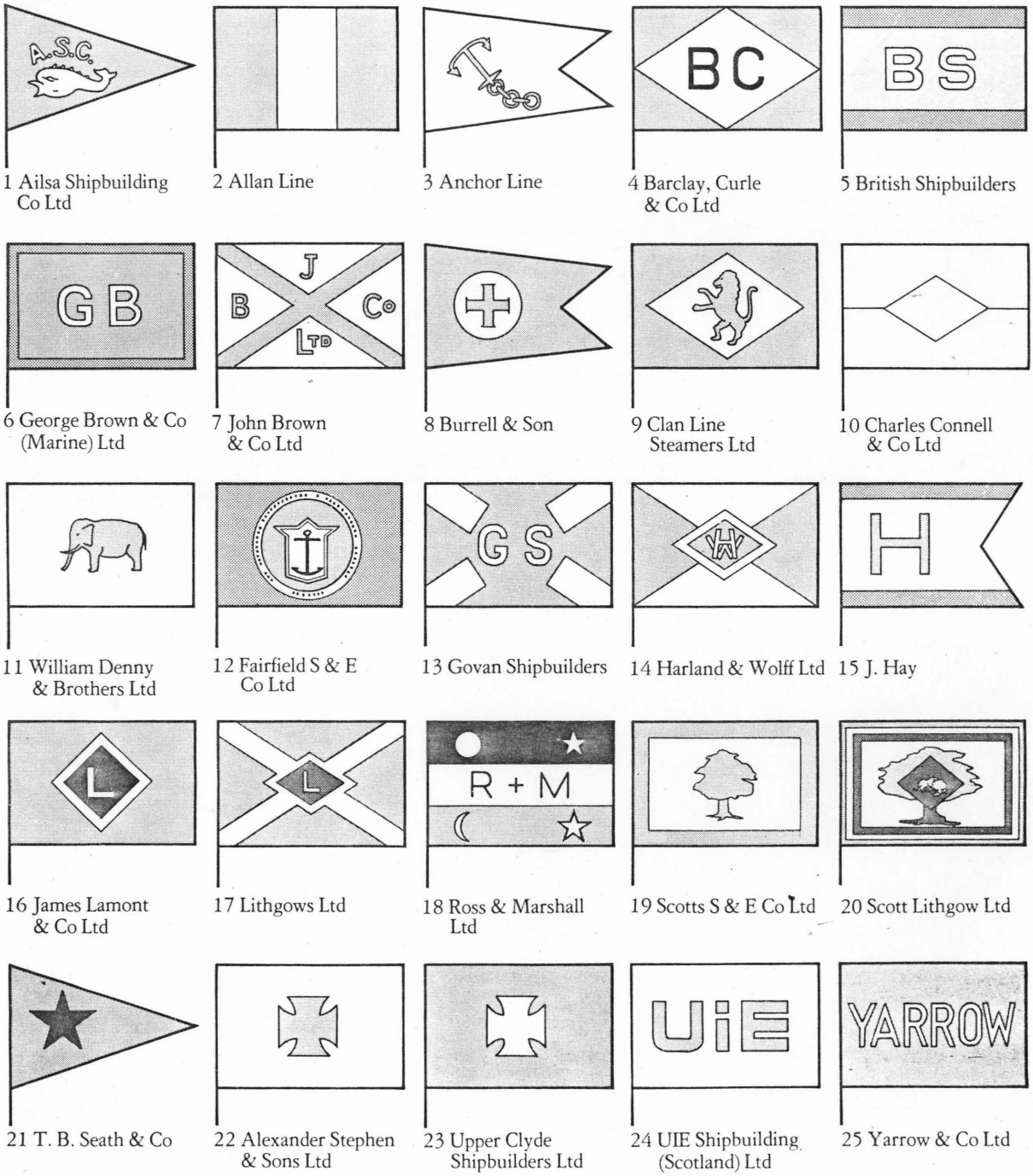
All modern ships have ventilation systems with hot and cold air trunking. This is drawn up in the office, checked at ship and then manufactured either in the sheet metal shop (if the shipyard possesses one) or at a contractor's works.

It is a known fact that the cost of a job in the shipyards varies with where it is carried out. For example, a simple job carried out in the shops has a basic charge but the same job on the building berth,



Appendix 4

Houseflags of some companies with shipbuilding interests on the River Clyde



1 Ailsa Shipbuilding Co Ltd

2 Allan Line

3 Anchor Line

4 Barclay, Curle & Co Ltd

5 British Shipbuilders

6 George Brown & Co (Marine) Ltd

7 John Brown & Co Ltd

8 Burrell & Son

9 Clan Line Steamers Ltd

10 Charles Connell & Co Ltd

11 William Denny & Brothers Ltd

12 Fairfield S & E Co Ltd

13 Govan Shipbuilders

14 Harland & Wolff Ltd

15 J. Hay

16 James Lamont & Co Ltd

17 Lithgows Ltd

18 Ross & Marshall Ltd

19 Scotts S & E Co Ltd

20 Scott Lithgow Ltd

21 T. B. Seath & Co

22 Alexander Stephen & Sons Ltd

23 Upper Clyde Shipbuilders Ltd

24 UIE Shipbuilding (Scotland) Ltd

25 Yarrow & Co Ltd

Vernon and Helen Stoner
~~Box~~ 277
Outlook, MT 59252

Dr. and Mrs. Ivan Doig

17021 Tenth Ave. N.W.

Seattle WA 98177

30 Jan. '95

Dear Verlaine McDonald--

Thanks immensely for passing along the copy of RED WAVES so promptly. And since you footed the photocopying yourself, the least I can do is reciprocate with a signed book for you and Andrew.

I've been simultaneously down with a cold and under a deadline on a portion of manuscript, so I've only done a fast first read of RED WAVES, but it looks to me as if you nailed the Producers News' history very aptly, the loss of local following when the paper turned to Party-line jargon. And from my admittedly non-academic point of view, you used great good sense in applying the Burke and Fisher perspectives; the best of the "New West" historians these days are frank about presenting history as story. And of course I liked the Geertz stuff; a historian friend tells me he thinks I'M trying to do some kind of literary equivalent to Geertz's "thick description." I'm doing--in fact, have done, in about third-draft form--my own imagined version of a Communist candidate for sheriff, but certainly your material will help me give that portrait better shadings. Later this year, I may see if you'd have time to read over my "Plentywood" section of this novel; I'll see what I can do, in return, about some kind of SPU appearance for you, if you like, as long as it doesn't have to be in this calendar year.

For now, real appreciation for your having shared RED WAVES; remember me to Myrtle; and good luck with the teaching year. Look forward to crossing paths with you, perhaps this summer if you and Andrew are going to be around.

best wishes,

Dan

COLLEGE OF ARTS AND SCIENCES

Jan. 13, 1995

Dear Mr. Doig,

It was a pleasure to chat with you on the phone. I mentioned our conversation to my mother last night – by now most of Plentywood and perhaps a fair share of Sheridan County has heard about it!

I have enclosed a photocopy of my dissertation. I hope it will be useful to you in some way. If you have any questions or comments about what I wrote, please don't hesitate to call me at 216-0487 (h) or 281-2404 (w).

Cordially,

Julaine McDonald

Seattle Pacific University
Seattle, Washington 98119/ Phone: (206) 281-2036
2633 W. Newton
Seattle 98199

Plentywood Herald
Aug 17, 1994

ph. 216-0487

EARNS DOCTORATE– Verlaine Stoner McDonald, a 1983 graduate of Plentywood High School, received her doctorate in communication arts and sciences from the University of Southern California in May. Her dissertation, entitled "Red Waves of Grain: An Analysis of Radical Farm Movement Rhetoric in Montana, 1918-1937," focuses on radical politics in Sheridan County. Beginning in September, she will be a professor in the Communication Department at Seattle Pacific University. Her parents are Vernon and Helen Stoner of Outlook.

Evan –
We enjoyed your reading at Elliott Bay Books – looking forward to your new books release – Hope this item from my hometown newspaper is of interest

Sincerely,
Bob & Susan Peterson

1/11/95
MacDld ⟷ 216-0487 SPU ⤢
Charlie Taylor's son
in Spanaway ⟷
concerns – publ. pkg of argmt
– Eng. dept.

20 March '95

Verlaine--

These are the two sections, about 20 typed pages apiece, that I'd appreciate having you look over for anything wrong, or for anywhere you can see that a crystallizing detail--about Plentywood, or my version of the Communist sheriff's rhetoric--could be added.

A bit of context for each section:

--The man saying "Tim, a whippet!" is Darius Duff, a Scottish Clydeside shipyard worker and veteran of leftist politics there, who has come to Montana to join relatives and work on Fort Peck Dam in the 1930's. (I've shifted Plentywood's Red politics on into the '30's, as I'll point out in the Acknowledgments, to reflect national politics of the time, challenges to FDR and the New Deal on the left and right, etc.) At Fort Peck Darius has linked up with a taciturn cook, Tim Jaraala. At this point of the book, the reader knows Darius scooted from Scotland but nothing about his political background, nor Jaraala's. Where I've marked "itals" in the margin, those will be italic flashbacks into Darius's Scottish background. I've moved the Plentywood political meeting place up closer to the courthouse (there's a later scene where a character has to look out over town and down to the creek valley), and made up my own Red sheriff; I guess I'd better add something like "Farmer-Labor" to the political movement he's trying to foment, hmm?

--The second section is primarily Darius's own political secret from back in Scotland, and here I'd like to know if he sounds to you--although he's an IWW-type syndicalist rather than a statist Communist--like a valid leftist, or fellow-traveler, in the context of Plentywood's radical politics. (I'm aware it's a bit of a stretch to have him involved with the Plentywood version instead of, say, unionism, but I want to see if I can make it work.) The woman Darius is involved with by now, at Fort Peck and its shantytown of Wheeler, is Proxy (a nickname derived from "peroxide blonde") Shannon, a taxi-dancer/prostitute at the Blue Eagle saloon; they've just begun living together on her houseboat near the Fort Peck dam project. The Tom Harry character is her boss, owner of the Blue Eagle.

Feel free just to jot comments in the margins, or however you'd like to go about it.

thanks

Alan

April 4, 1995

Dear Ivan,

Thank you for having coffee with Mom and me last month and for sharing these excerpts from your book. I enjoyed having this "preview of coming attractions" and the chance to give you some feedback.

I have made several comments in the first section regarding minor historical details. I realize that noting the degree to which Plentywood's streets were tree-lined in the 1930s will hardly make or break this book. I have no idea whether this type of information is at all useful to you, but there it is if you want it.

The only substantive issue I would raise regarding the first section has to do with Mott's take on FDR and the New Deal. I think he's too soft on Roosevelt. Only when the movement was on its last legs in northeastern Montana did its opinions on mainstream politics moderate to the point that they would have said the New Deal was a decent start. Also, most of the folks I talked to in Sheridan County said that the New Deal programs didn't put much money in their pockets until at least 1938 and that it took war to really turn things around.

The Producers News did not cut FDR much slack. Here are a couple of items that may be of interest:

- In July 1934, the News reported that the CCC Camp took Sheridan County boys to "get trained as strikebreakers and to be taught how to behave as Wall Street's cannon fodder."
- Also in July, the paper carried the official CPUSA statement proclaiming that the New Deal "turned out to be [the] raw [deal] and the forgotten man, the poor farmer and worker is finding himself in a worse condition than 1932. There is no new deal under capitalism."
- In April 1935, Charlie Taylor wrote, "In 1932 Wall Street nominated a multi-millionaire banker and New York City real estate and public utility magnate for president.... Wall Street took one of its very own members, FDR, and made him president. They sold him to the workers and farmers as a messiah.... Legislation by the capitalists, for the protection of the ruling class, was put over under the guise of relief for the forgotten man immediately after Roosevelt stepped into the White House."

I made hardly any comments in the margins of the second section. In short, I like it, it makes sense, and I don't think it's a big stretch. The Plentywood crew was motley, that's for sure. Of course, the CPUSA itself has a long history of conflict and factionalism. There were a lot of different ideologies and commitments among the radicals jostling around in the big red tent - nationally and in Plentywood. So I don't find it incongruent to imagine that Duff would have some fascination with the movement, and I think he would have been perceived as a fellow traveler.

Thanks for letting me read your work.

Sincerely yours,

Jeclaire

P.S. I couldn't help but be curious: is Darius related Ninian Duff?

Box 277
Outlook, MT
59252
June8. 1996

Dear Dr. and Mrs. Doig,

My Mother's Day gift of "Bucking The Sun" from Verlaine and Andrew was really great and even made more special being signed by you, Dr. Doig. Thank you a million.

I like your words "the authors of Verlaine." She has always been very special to us. We had 3 children, Howard, Carolyn and Gordon, in the years from 1951 to 1955. Howard and Carolyn were just 10 months and 10 day apart. I had heard the old wives tale,"If you are nursing a baby you don' get pregnant." WRONG!!!

Carolyn had been born with what doctors diagnosed at that time as a heart defect. Back in those years doctors didn't know what to do. Today she would have had the necessary surgery in no time flat as the 3 defects were found to be all on the outside of the heart. On August 24, 1955 they tried surgery at the U of MN Heart Hospital in Minneapolis. She had a 50-50 chance with surgery but none whatsoever without. The surgery was succesful but because of heart and lung damage she could not survive. She was 3 years and 9 months when we lost her.

So you can imagine our joy when Verlaine arrived Junuary 10, 1965. I couldn't believe it then and I can hardly believe it yet---31 years later. And so you see "the authors of Verlaine" truly touched our hearts. Thank you.

There is no doubt about it, you have a great way with words, Dr. Doig. Many, many times I laughed right out loud at some of the expressions you used in your book. I had never heard quite such concoctions of words and phrases and I am sure most of them were right out of your own imagination. But your particular wording hit the nail right on the head for the particular situation you were describing. What a gift you have!!!

A person can live right with the charactors you portrayed. I'm sure the book will be a fantastic success. I am curious about one word on Page 16, the 7th line from the bottom of the page. It reads, "across the green baize field, etc." At first I thought it must be a printers error and it should be "green maize field." I didn't think there was such a word as "baize". But looking it up in the dictionary, I learned it meant "a coarse woolen stuff of plain color, with a nap on one side, used for table covers, etc." Thinking about it, I decided you probably did mean "baize" after all being "a plain cover of green field". An interesting description.

I truly marvel at the amount of research you must have done to have the knowledge of describing the building process of the dam, the machinery workings, etc. I can only compare it to an individual writing about our farming operation with terms of treating wheat, summerfallowing, tool bars, air drills, air combine reels and on and on. How in the world could one one write about the operation if they had not lived it? And that is what astounds me in your "Bucking The Sun". Even the name of your book has a Montana ring to it!! A bit "steamy" in parts but held ones interest with suspense from the first page to the surprise ending of the last pages. Pretty Fantastic!

In the summer of 1936, our family drove to Fort Peck to see the work being done. I was 6 years old and though I was too young to fathom the magnitude of the project, I certainly remember the excitement of my parents. I am sure a great deal of their enthusiasm stemmed from the anticipation of the forthcoming electricity that would be generated, for the flood control or irrigation would not have concerned them living in the far northeast corner of Sheridan County.

Vernon's uncle worked on the dam and he and his family lived at Wheeler in one of those shantys you described so well. And by what family talked of in later years, I am sure the town was just as wide open as you wrote. One of our neighbors, just four miles from my home, went to the dam as a truck driver. He left his wife and three teenage children to manage the best they could on the farmstead. He came home with pneumonia and died within a week just before Christmas, December 20, 1935.

Your paragraph about New York photographers brought back the memory to me of my parents and extended families reaction to the picture of the youngster having been set on the bar at Fort Peck. I am trying to recall if it was in the first edition of the "Life" magazine. My parents were appalled....as many were in our community.

Thank you for being so kind in acknowledging both Verlaine and Myrtle. I called Fred Quivik in Froid to tell him of the acknowledgment to him, also. His wife, Mindy, who is the pastor of the Froid Lutheran Church answered as Fred was at a meeting, so I told her about his name being included. Fred is running on the Democratic ticket for representative to our Montana legislature from our district against the incumbent from Plentywood who has served one term.

Thank you also for including Plentywood in your book. It will be a pleasant surprise for people of our area if they have not already heard about it from me.

I have enclosed 2 items from our Sheridan County News of June 5th. I had the Taylors for supper on May 30th along with some of the "old timers" to reminisce with Carl. When I completed your book, I took it into Joe Nistler, the editor of the newspaper , so the other item was written by him . You are a celebrity in Sheridan County! The obituary item was in our Farmers Union state paper, and I thought you might have known the family being she was once of Dupuyer. And the other litle item is self explanatory.

We finished seeding June 4th, which is pretty late for our durum wheat. Now we will spray the stubble so it won't have to be summerfallowed for at least a month. We have had about an inch of rain this past month so we are ready to watch the crop grow. Cattle are branded and off to the summer pasture over in the Dooley country. They lost only 2 calves of over 100.

I bought a frame for the postcard you sent and it is on display on our antique organ for all to see. Remember, the invitation still stands to have you come to visit us.

Thanks again for your kind words of Verlaine. She has shone in our hearts since the day she arrived.

Sincerely,

Vernon and Helen Stone

Box 277
Outlook, MT 59252
February 18, 1996

Dear Dr. and Mrs. Doig,

Imagine my surprise when the enclosed magazine arrived in our mail and thumbing through it I came upon the article "Writer of The West" and there you were!!!

The magazine is sent once a month as compliments of our Farmers Oil Company, Outlook, to the customers. I called the manager, Todd Nelson, to ask if he had another copy so we could send one to Verlaine, too. Tomorrow morning our hired man will stop at the station to pick it up as he comes through town on his way to our farm.

I cannot wait till your book "Bucking the Sun" comes out. I'll be the first in line to buy it.

If you decided to have a book signing session in Plentywood we would roll out "the red carpet," you can bet. We would put out publicity like you wouldn't believe.

Andrew and Verlaine are very

happy in Berea. They were home for Christmas and it was wonderful to have them.

It is only about a month now and our baby calves start coming. And then by that time spring is just around the corner and time for all the field work again.

I will give a copy of this magazine to Myrtle Waller, too. She'll love it.

Sincerely,
Vernon and Helen
Stoner (Verlaine's folks)

20 March '96

Dear Helen & Vernon--

My wife and I have been away most of the winter, and in the accumulated mail I've just found the copy of the Co-op magazine and your good letter. Thanks immensely for thinking to send it, and for the report on Verlaine; I'm sure she'll shine in her career anywhere.

No immediate prospects of coming your way, sorry to say, but Carol and I will keep your invitation in mind. We hope this will be a good year in the calving shed and out in the fields.

very best,