Brechin owes its origins to the mediaeval Cathedral and the Celtic monastery which preceded it. The Cathedral, as the oldest and most inspiring building in the Burgh, makes a good starting place to the tour. The finest aspect of the Cathedral is the west front which is entirely mediaeval, with the exception of a modern aisle wall joining the 10th century Round Tower to the 13th century fabric. The Round Tower is one of only two surviving in Scotland, both of which are in Tayside, the other in Abernethy. They are of an Irish type of which remains of eighty exist in Ireland. This is one of the finest and most elaborate of the whole series which was almost certainly built with an accompanying detached stone church by Irish masons. Both Ireland and Scotland were Gaelic speaking at that time, the late 10th century, when Kenneth II King of Scots, whose wife was a Princess of Leinster, endowed the monastic community with lands and had a Church and Tower built. Brechin was the mother church of the provinces of Angus and Mearns, a centre from which the Culdee monks went out to minister to the local communities. In the mid 12th century Anglo-Norman influences spread into Scotland and King David I tried to bring Scotland into line with continental ideas. Brechin was made the seat of a small diocesan bishopric and a new church or monastery which ran out to minister to the local communities. It was not until from about 1225 that the Culdees and their Prior were replaced by a chapter of Canons and a small, though fitting Cathedral was built in the Gothic style. The building has been added to and subtracted from a few times, most recently in 1900-1901 when as far as possible it was restored to its late medieval proportions. A guide book is available from the Cathedral which is open in summer from about 9 a.m. to 6 p.m. and reduced hours in winter.

Walk west along Chanonry Wynd, the lane which runs through the area where the Cathedral Canons had their manses and gardens. The house at the corner of the lane occupies the site of the College or Sang Schule established in 1429 to train choristers for the Cathedral services. Local boys were also taught Latin and the building, or part of it, remained as the Burgh Grammar School till 1814. At the top of the lane a small detour to the left down Castle Street, can be made where there are some fine little houses worthy of note. Further out are Brechin Castle gates and about 300 yards on is the old West Toll House at the fork of the road. Avoiding this detour, turn right at the top of the lane noting the large square town house of the Laird of Carcary built in 1785. Its street front is built of polished stone and other walls are of rubble. It has a small gable supporting a chimney, a common feature on 18th century burgh houses, but in this case pierced by an oval window. The elaborate building at the road junction in the Tudor style, unusual in Scotland, is the Mechanics Institute built in 1838 to re-house the Parish, Burgh and Grammar Schools, also to provide an Institute for the education of working men which gives it its name.

Walk up St. Mary Street and the steep St. Andrews Lane. Passing the Episcopal Church hall on the left you glimpse St. Andrews Episcopal Church as you turn right into Maisondieu Lane. The old High School, now Maisondieu Primary, is seen on the left and on the right an old United Presbyterian Church built in 1849. Further along on the left are the remains of the chapel of Maison Dieu Hospital, an almshouse established by Lord William de Brechin in 1267.

Turning right down Market Street and into the High Street you will find a circle of stones set with a small brass cross marking the site of the Mercat Cross demolished in 1767. To the right is the old Town House built in 1789, replacing an earlier tolbooth with a similar arrangement of cells on the ground floor and council chamber above. It was succeeded by new Municipal Buildings in Bank Street in 1894 and has been let for various uses since. On the first floor is a fine ‘Serlio’ or Italian window and the gable is topped by a wooden belfry but the cement rendering and the conversion of the ground floor into a shop detract from the original appearance. Across the street are a unique series of six gabled merchants' houses of the early 18th century, a type once common in Scottish burghs. The merchants lived above the shops and had warehouses above and workshops at the rear.

There are some interesting neuk and closes between them. The whole of the upper part of the High Street and the south side of Church Street has seen only minor changes in the last 200 years and is the earliest part of the burgh to have been inhabited. Some of the buildings here have had a face-lift. No. 40 High Street had the entire front re-built. Past it is a pend leading to the Bishops Close...
where the Bishops Palace and yard stood on the north side of the close. The Palace was a simple two-storey building used as the manse until its demolition in 1830. On the left hand side of the pend is the remains of an earlier arched pend underneath a tower built by Bishop Crannach in the mid 13th century giving access to his residence. Beyond the pend on the right hand side of the High Street are some 18th century houses. One of these has crow stepped gables which indicate it may date from before 1700 and may be the oldest standing secular building in Brechin. Coming to the railings and garden on the right, a striking view is to be had of the Cathedral. Proceeding down the High Street the last building on the left with bold rusticated pilasters and classical pediment was built in the 1830's by James (Dandy) Greig, a linen merchant with grandiose notions in clothing and architecture but who was declared bankrupt before he ever lived in it. His idea was to live beside the crowded South Port area where many of the handloom weavers, with whom he dealt, lived. The building was known for a time as Dandy Greig's House or Castle Folly.

Greig's House or Castle Folly.

Turn left up City Road and right along Damacre Road until you come to St. Ninian's Square. This is a pleasant corner which took on its present appearance in the closing years of last century. The Public Library at the north side, built from 1891 to 1893 forms the north side and is especially attractive viewed through the trees. It also houses a small museum. In 1894 the Square was lit by electricity, seats were placed in it and the granite fountain in memory of Fox Maule Ramsay was moved from its original position in front of the Mechanics Institute. In 1894-97 the Caledonian Railway built a new suite of booking offices etc. which faces the south-east corner of the Square. After a period of decay and vandalism, the whole station building has been leased by British Rail to the Brechin Railway Preservation Society who are repairing the buildings. The engine shed is open 2 p.m. to 5 p.m. each Saturday and Sunday. On the south side is St. Ninian's Place built as a hotel but never used as such. It obscured some unsightly coal offices, yards and a slaughterhouse. At the south-west corner on Southesk Street is Southesk Church built in 1897-98 as the Gardner Memorial Church. It is one of the most attractive of Brechin's 19th century churches, built of red Dumfries sandstone and incorporating a hall and meeting rooms. The remainder of the Square is completed by pleasant private houses. Southesk Street was opened up in the mid 1830's to by-pass the old town centre.

Walk down Southesk Street and stand at the junction with Union Street and look across to Den Burn Works. This is Brechin's finest industrial building with a bold tower built in 1864, by D. & R. Duke, as a linen mill. Originally it had railings around the wall and two trees stood in the open yard. It ceased production in 1892.

Proceeding east and turning right down Witchden Road, the site of 17th century witch burning, on the left is Maison Dieu Church built in 1892 as a U.P. Church, replacing the little church in Maisondieu Lane which give it its name. Turn left along River Street. Most of this street was rebuilt in the late 1960's. The old buildings, dating mainly from about 1800 or earlier had become decrepit and suffered from occasional flooding due to a weir below the bridge, now demolished. Originally there were houses along the waterside. They were demolished and the present embankment and railings built in 1880-83.

At the far end of River Street is Brechin Bridge. The earliest mention of the bridge was in 1220. If none of the present structure is as old as that, it may certainly be medievial. It was described as a fine bridge of two arches in the 17th century. After a storm in 1696 it was still being repaired in 1707. In 1786, the north arch was completely rebuilt at a cost of £350 by Alex Steven who built the Bridge of Dun about four miles downstream in 1785.

Brechin is a small burgh with origins going back 1,000 years. The burgh developed from the 12th century when the bishop was granted permission to hold a weekly market. The oldest area of urban settlement was around the marketplace, at the top of the High Street. Until the 1780's Brechin Bridge, three quarters of a mile away, was the only one over the South Esk and all traffic from the south crossed it and went up the steep High Street on its way to Aberdeen and the north. The older buildings, including most built before 1945, were constructed of the local sandstone quarried from areas to the south of the burgh. At best, it is a pale pinkish colour. On a wet day stained with rain it can be a drab grey-brown and is not always the hardest wearing stone for fine architectural detail. Apart from the Cathedral there are no individual buildings of great merit and no fine classical terraces but there are some interesting and quaint surviving groups of typical old Scottish burgh architecture of the 18th century, some of which deserve individual mention. There are also some fine vistas due to the steep brae on which the old town was built.
Alvah

extending over 20 years, many will recall today with gratitude, and who was in many ways a man of outstanding natural abilities. Mr Fraser, who died in August 1822, aged 67, began life as a pupil teacher at Inverurie. In 1876 he graduated in Arts at Aberdeen University, and was for a short time headmaster at Tomintoul. Soon he was appointed to the headmastership of Banchory-Ternan School, where for a number of years he had a highly successful career. In order to better equip his pupils Mr Fraser attended the Science and Art Department’s classes in London for Botany, Physiology, &c., and as a result several of his young people obtained scholarships under the Science and Arts Department. Several also passed the Civil Service examinations, and one obtained the highest place in England, Scotland, and Ireland. For a period of over 21 years, Mr Fraser carried out with distinction the duties of headmaster of Linhead School, retiring to live in Stonehaven in 1916 amid the hearty good wishes of a host of friends. He was a gentleman of strong intelligence, of marked fluency in speech and writing, and a thorough master of English. He wrote on many subjects, and always with a distinction of style and accuracy of knowledge. He was a capital musician, and among other things he had an intimate knowledge of bee culture.

On Mr Fraser’s retirement the position of headmaster was taken by Mr James Ironside, born in Methlick, and a graduate of 1881. Before taking up service in Alvah, he had been headmaster of the schools of Arnage, Tongue, Courdon, and Ardclach, and he had also served in the school of Fraserburgh, and when he left Linhead he went to Leslie, Insh. He was followed at Linhead by the present incumbent, Mr Francis W. Campbell, an Aberdeen graduate of 1921, whose studies had been interrupted by war service. He is a native of Pitlochry, and at Linhead he carries on the work on the high plane of ability and devotion that has been characteristic of the school for many a long year.

That the school of Linhead did a great deal of admirable work when it was under women as well as when it was under men is in Alavh recognised to the full. Already in this article some notable names of those who began their school career under their regime have been mentioned and others are given in the narrative that follows. There will be recalled, in addition to these, the name of Major David Simpson, M.A., M.B., C.M., I.M.S., youngest son of George Simpson, South Burreltdales. He received his early education at Linhead then taught by a female teacher, and passed on to the parochial school of Alvah. He went to Milne’s Institution, to be under the tuition of his relative, Mr Allan B. Andrew, and obtaining a good bursary at the competition, graduated in Arts at Aberdeen in 1898, and afterwards passed through Medicine. He went to London and while walking the hospitals there, it is remembered of him at the Children’s Hospital, Great Ormond Street, of which he afterwards became an hon. physician, that he gave a bit of ribbon to a little girl patient to try and cheer her. With the ribbon the little sufferer beguiled the weary days contriving, making and unmaking make-believe dolls. At the last, when both knew the case was hopeless, she asked if the young doctor would put her favourite in her hand to go with her to the grave. A small incident, but it is related in a pleasant story in one of the school reading-books. Dr Simpson entered the Indian Medical Service in 1897, and saw active service in the Chin-Lushai Expedition. He became a leading medical authority in Madras, and was the author of a little book on the care of child-life in India, which was recognised as admirable in every way. Major Simpson, who had a most worthy career in his profession, died at Madras in March 1906, aged 46.

At this point we give place gladly to another writer.

Some Memories.

Mr John S. Rae very kindly furnishes us with pleasant and interesting memories of his school days, particularly those which he spent at Linhead. Mr Rae is able to recall a time when a dame’s school was in flourishing existence near by to Burren Grains where, under two maiden sisters, spinning, baking of oatcakes, cooking and lessons all went on simultaneously. He attended this seminary for a time, and got initiated there into the mysteries of the A B C and finally of the Shorter Catechism. The Bible was the text-book in the main, and he has still in memory how the village of Capernaum was described as Capper Naun, and how to get out “to fit the coo” was a mark of high approval of one’s conduct and otherwise of one’s progress in the lessons for the day. “I have still in mind,” writes Mr Rae, the place of horror at the school, called the Bo Hole. This place of Stygian darkness, a sort of black hole of Calcutta, was a space between the wall and the end of a wooden bed, within whose cavern depths reposed at night the sister dames who kept the school. Katie and Bell Kirkton were their names. The Bo Hole, curtained off from the earth-floor schoolroom and living-room, received into its mysterious horror and gloom only the most wayward and erring of scholars, when all other forms of discipline had been tried in
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VAIN. PERSONALLY, I NEVER WAS SENTENCED TO ITS GRIMY SHADOW, BUT I HAVE INTERVIEWED DELINQUENTS WHEN RELEASED FROM DURANCE VILE, AND THEIR WORST CORRESPONDED TO WHATEVER TREMENDOUS AND TERRIBLE TRUE STORIES THEY HAD WORKED UP. THESE SUGGESTION OF RATS AND MICE, ALL OF UNACCOUNTABLE SIZE, SEEMED TO POINT TO INNUMERABLE HORRORS SUCH AS PHARAOH'S LOCUSTS, AND BEING GENERALLY BARREN FOOT IN SUMMER AND AUTUMN, THOSE DELINQUENTS STOOD TO LOSE OLD TOES AMONG THE HUNGRY RODENTS IF NOT CAREFUL TO KEEP UNCONSCIOUSLY PACING TO AND FRO IN THE TERRIFYING GLOOM. AT ANY RATE THIS WAS CURRENTLY BELIEVED TO BE THE CASE UNON IMPEACHABLE EVIDENCE: WHEN BELL TOOK A BAG OF OCTOPOUS UPON THE HOMELY GIRDLE HUNG OVER THE PEAT FIRE, THE CHANCES OF EARNING THE BE HOLE WERE INCREASED, FOR THE PROMPTING OF KEY APPETITE WAS THEN WOFT TO TEMPT SOME LUCKLESS LOON OR QUINZE TO "BRAC' AN' "NERFEN' ATA CORNER FROM SOME OF THE "KERRERS" WHEN SET UP TO "FIRE" IN A ROW RUND THE INGLE, WITHIN EASY REACH OF THE FINGERS OF THE URGENTS SEATED IN A ROW JUST SLIGHTLY BACK FROM THE BREAD CIRCLES. NO WRITING OR FIGURES WERE TAUGHT AT THIS KIRKTON ACADEMY, "MACULLOCH" FOR ENGLISH AND THE BIBLE PROVERBS BEING THE STRONGEST GOOD SOME USES, AFTER THE "FIRST BEAKIE" AND THE A.B.C. HAD BEEN DUTIFULLY DIGESTED. THE SHORTER CATECHISM AND SPELLING WERE FINE "THE CATHOLIC" AND "THE A.B.C." HAD BEEN DUTIFULLY DIGESTED. MISS PITCAITHLEY WAS A THICK LADY WITH REDISH RINGLETS AND A BROAD, UNACCOUNTABLE COUNTENANCE. NOBODY SEEMED TO KNOW WHERE SHE CAME FROM, A RELATIVE AND "HOUSEKEEPER" NAMED MISS ELIZABETH OMAN CAME TO LINHEAD ALONG WITH "MISS Sutherland, and ultimately married the late Mr. Christie, Sgor, tenant of the present tenant of Bagra, Alva; Miss Oman (Mrs. Christie) died two years ago at the great age of St. Mimes, and headquarters became known and left. After her came a lady-like, red-haired young lady, Miss Cumming, whom I liked very much, and who I think returned the sentiment warmly for she devoted much special time to my advancement and encouraged me in my studies. The next teacher after Miss Cumming—had I now left school—was Miss Crockett, I believe. Then came a Miss Merson, and after her Miss Thomson, now Mrs. Williamson of Ammanford. One of the most lovely of teachers at Lin­head was Miss May Innes, daughter of the late Mrs. (George Innes, millwright, Linhead Farm. She was a pupil teacher at Linhead, and latterly, for a short term, headmistress, when she left to take a course of study in London. She was a sister of the late Miss Innes, Montblairy, and also of Miss Duncan, Cowfords, Eglinton. She was a kindly, lovable and helpful teacher, and contributed very materially to the prestige of Linhead as a useful and highly beneficial institution filling a large sphere in the general education of the parish of Alva, which it continues to do to the present time. As time went on the school passed under a new caretaker: Mrs. Stoker. She was a good teacher, but I think she was not so well qualified for the position as the present incumbent, who is wisely filling up the measure of the school's traditional usefulness. I well remember the late Rev. Hugh Fraser's early visits to Linhead when he first came to Alva; he, along with Mrs. Morison of Mont­blairy, adjudicated the prizes yearly given to the deserving scholars by Mrs. Morison's generosity, and I still can remember with a glow of pride to see the current of children in the general education of the parish of Alva, which it continues to do to the present time. As time went on the school passed under a new caretaker: Mrs. Stoker. She was a good teacher, but I think she was not so well qualified for the position as the present incumbent, who is wisely filling up the measure of the school's traditional usefulness.

"Well Done, Boy!" As has been said, the visits of "Boggie" and his lady to Linhead School were red-letter days in our calendar of school-life. The lady teacher, holding her head high and literature or the mere thread of patronage, combined with a greater or less status of efficiency certificates, approved of by the minister and the Montblairy family, was on such occasions in a hot fever of excitement, which communicated itself to the scholars in more or less marked degree.

Any failure on the part of a class or scholar to give a creditable "show" when called upon for a presumably extemporary exhibition was a shocking experience. The boy or girl who ext
In any particular branch of learning
there was inevitably called upon for an exhibit of his talent. One more famous of the line was
such occasion the junior English class was
sent to the floor and began to wrestle
with the chapter of "The Coming of the Ro-
mans," and the grim Battle of Mons Graupius,
where the old class gathered to fight for their
cases, their homes and freedom, under Gal-
gacus, "who must have had in him some of
the stuff of which heroes are made," says the
next. But unfortunately the class on this oc-
casion was called upon to read in turn, sent-
tence by sentence. One boy, now a decent and
plodding farmer in Alvah, electrified the class,
teacher, minister, and the Bognie listeners all
in a heap, by reading in a high-pitched, stea-
sonian voice, "This man must have had in
him some of the stuff of which heroes are
made!" Boars of laughter greeted this awful
rendering, but poor Miss Teacher's face was
one scarlet flame—hair, neck, hair and all. A
broad, unconscious grin suffused the face of
the horsey-handed reader of the sentence. Even
at that moment of early age the budding sense
of a literary gift within me made me wish sincerely
to take that girl teacher into my arms and
comfort her. The sense of general confusion
was such that I could not tell all at once that
our own prestige and that of the teacher had
received a shattering blow! Bognie's hearty
"Well done, boy!" made everything right again
within a few seconds.

Sergt. Joe Baxter.

An outstanding escapader of those school
days was Joe Baxter, the future Sergeant
Baxter of the Black Watch, who had even then
in him all the vim and dare-devil traits for
which, and by which, his military and civil
career was so distinguished. The cause was in
constant employment by the Turfman, in her
deveaux to mould the character of this
collaborator and redoubtable son of Alvah and the
Empire. A broad, sweet, cherubic sort of grin,
as if he were enjoying some rare treat was all
the facial expression ever evoked upon the
dial of Baxter when under the canes or the tag!
Day after day found small boys locked into
office-house or coal cellar, or hoisted upon the
school roof and left there marooned with no
hope of rescue. Another occasion saw the
noble Sergeant-in-embryo engaged in strip-
ing the slates from the roof of the school,
on a scorching hot day. In order, he said, to
create a draught of air to fan the hot heads
and fevered brows of the fainting pupils below!

One sultry afternoon when time hung heavy
on our hands and the hours seemed endless,
Baxter wisely "fed up" no doubt, and
with the usual cherubic smile of yearning
simplicity and goodness playing upon his dial,
his teeth bit the corner of his eye and,
announced that he was wanted home on an hour
caller than usual that night. "Certainly,
Joe, you may go" beamed the teacher, and
Joe vanished into the outer air drawing the
school door very gently after him. The click
of the key turning softly in the lock was a
Mr. Joe Baxter's "Yes Baxter!"

So sang his poet friend and old school-fellow of
these early halcyon days of our form at Linhead.
Sergeant Baxter, though retired on
pension and living in Australia, rallied, despite
the fact that he was over age, to the Empire's
call during the Great War. He gallantly fell
at his post, and now
he sleeps
In Flanders fields
Where poppies grow
His brother, the late Provost Baxter, Oldmeldrum,
and Mr Alex. Shand, late draper, Tur-
iff, occupied the same desk with myself at
Linhead, and the Sergeant, "the stoutest man
in the 42nd Regiment," was a pupil there at
the same time.

A Planter in Hawaii.

Another worthy was Geordie Gill, a bad
scholar, but a grand loon, and a fearless
in any adventure. Geordie's escapades are far
too many to chronicle here. One may suffice
as an illustration of the boy and of the man.
Geordie had no dread of water, and on his way
home from school he preferred cool soles to a
walk right through the burn at any convenient
point for himself. "A ledderin' at hame" had
been, for a "dreepin' weet"—a nightly experience for some time back.
The writer possessed a fine barrel-shaped or
fluted ink bottle. Now Geordie was a connois-
seur in ink bottles, old knives, magnets, and
all the rare nick-nacks of schoolboy barter and
commerce. So to possess that ink bottle be-
came with Geordie a mania. I would neither
BANFFSHIRE SCHOOLS.

trook nor sell for any consideration. What
was to be done? A roaring spate had trans-
formed the Glen Burn into a perfect river in
miniature. Geordie saw and seized his oppor-
tunity. "Look here!" he bawled when we
reached the burn that night. "I'll jump the
burn if ye'll gie me that ink bottle." Geordie
was perfectly aware, as were the rest of us, of
the absolute impossibility of this feat, but it
could not resist Geordie's anxiety for the bottle
longer, so I agreed. Geordie took a running
diving leap and landed just in the middle of
the stream! Waist-deep he waded out. We
asked him next day what was said or done
about it at home. "Oh," said Geordie, "they
just laugh heartily at my condition." Geordie
was incorrigible as regarded water. He is now
a sugar planter at Hawaii. Embowered amid
these purplish tropic seas his mind frequently
reverts to Home and Auld Lang Syne, and the
epidemic of the ink bottle and the slate-swollen
Burn of Rosieburn.

O, happy days of youthful joys
How fast away ye glide;
We're weavin' auld wha ance were boys
On bonnie Deveronside.

Meeting an old Alvh school friend of very long-
standing, I asked him whether he had attended
Linhead school in his youth, as I was inter-
ested in the early history of this school means-
time. My friend told me he remembered when
Linhead school consisted of a tiled-roofed build-
ing, school and teacher's dwelling-house
attached together, with only one living room
for the teacher and his sister-housekeeper. No
doubt this room had been sub-divided in some
way or another. The teacher was evidently
a man of some eccentricity of character. He
ultimately gave up teaching and became a
hermit, said my informant. This recluse
was followed by a teacher of the name of Philip,
who ultimately became a minister of the Gos-
pel, so that as already said, the foundation of
Linhead school dates clearly back for one
hundred years from the present date. The
school from its original foundation until the
present time has been very especially a Mount-
baldy and Bonnie family institution, as even
one hundred years ago the Morrison's feasted its
scholars on strawberries and cream from
Mountabaldy House annually. One old Laid
Laird is said to have asked his gardener
with some anxiety whether a pint of straw-
berries would be sufficient for each scholar!
So the old Lairds were not all bad!

The school has filled a large and useful place
in the educational affairs of Alvh and has
sent forth from its precints men and women
who have achieved no mean place in the ranks
and names of their contemporaries. Prob-
bly the most eminent scholar who ever at-
tended it was the late honoured and respected
Mr Duncan Maxwell, Inspecter of Schools. Mr
Andrew was a son of the late Mr John
Andrew, carpenter, Bridgend, Linhead, and
had deservedly high and honoured place in the
sphere of educational effort in Scotland.

Other Schools.

There were some other schools in the
parish, in addition to those of Alvh, Lin-
head and Dunlugas. There was one of
considerable local fame at Hill of Ryeland.
"There was a dammie's school at Hill of
Ryeland," writes Mr John S. Rae, "away
back in nearly pre-historic times. My
father attended it for a time, I believe.
It had sod walls, turf and straw roof,
earth floor, &c. Bearded men went on oc-
casion to it for a winter rath at arith-
metic. One of the sights was Lord Kim-
tore and his hounds fox-hunting in full
cry past the turf-roofed school and all the
pupils old and young out to see the fun
as Lordy, in a scarlet hunting-coat swept
past with his retinue and on to Craig-
netherty, where Reynard was usually run
out to earth or killed after his long flight from
the hills of Alvh."

Mr Wm. Robertson, Highfield, Banff,
one of Alvh's most loyal and successful
sons, was one of the last remaining pupils
of this ancient seminary at the Hill of Ry-
land. The teacher in his day was Bell
Sharp, and before he took up the reins of
office they were held by a male teacher,
Sessor by name, whose family were later
at Alvh school. The school was carried
on in a small thatched building, in one
end of which was an open fireplace with the
hearth level with the floor, and the usual
crook above the fire, and on the top was a
wooden chimney. The school was in one
end, and Bell lived herself in the other.
She was then well over in years and had
lost an eye, and it is recalled that in a
pair of silver spectacles with which some
good soul had presented her no glass was
provided for the vacant eye, so that in this
case at least no needless expenditure was
incurred. So far as printed means of
learning were concerned, these were found
in a spelling-book and in the Old and New
Testaments; there was a desk for writing,
but at this date writing was not one of
the accomplishments that were professed to
be taught, nor did arithmetic put Bell's
brain to any bewilderment. All the same
the pupils, mostly from five to seven or
eight years of age, were taught to read
fluently, and of portions of the Scriptures
their knowledge tended to become inti-
mate. The open raftered schoolroom was
used as a perching place for Bell's hen.
There was one respectable but ancient fowl
that was unable to reach its roost and one
of the events of the children's day was to
see Bell transfer her from the rafters as it perched on a houe-handle—
every evening the hen was hoisted to its
night abode and every morning it reached
the floor by the same happy device of the
ingenious Bell. The teacher had a physi-
cal terror of thunder. It was the voice
of the Almighty speaking in anger, and
she imbued her young charges with some-
thing of the same feeling; every clear and
shining object had to be hid out of sight,
even an errant pin might attract the light-
ing. When Bell gave up teaching her

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to bits that had brought the well-deserved punishment upon me.

So much for the winter of 1851-52. The next winter, 1852-53 I went to Shielburn School. Grandfather went to moss, and got his schoolboy at Shielburn to be both schoolboy and cow bailie. He got a fine sail and sent me back to Scobbach, as it was not so far away as the Shiel or Loch Kirk School, and that winter several sailor lads came to Captain Cumming to learn navigation.

One day of blustery weather, grandfather said I should not go as I might be smothered. But off I went, bragging the two miles up the glen among drifts of virgin snow. Arrived at school, no one was there but one sailor lad and myself, and the Captain kept a good fire in the grate and allowed his two pupils to sit at it the whole day. About mid-afternoon he put on a kettle, saying, "No lads, ye winna himmer me tak ma drappie tay tae mysel', an' as ye' re behave ye' re vey weel, I'll gie ye baith a moo-fu'." That was the happiest day I ever spent in Scobbach School, and as I got home without being "smotherd," I set grandfather a laughing by telling him all about it.

**A Musical Domine.**

In the end of April I said "Ta, ta" to Scobbach, and went back to Drachlaw. Next winter, 1853-54, I was sent back to the Shiel School to a new teacher, Mr Wm. Duncan, a middle-sized, keen-looking, thrifty man, very fond of music. A great favourite with him in the mornings was, "Hark the bawbee Christ Church Bells, One, two, three, four, five, six; They toll so sweet and so complete. And they chime so merrily, merrily." "Hark the first and second bells, That every day at four and ten Cries, Come, Come, Come to Prayers, And the verger trips before the Dean. Tinkle, Tinkle, Tinkle I cried a small bell at nine. To call the bearer Home; But no'er a man does leave his stand, Till he hears the mighty Tom." It must have made any mischievous in the words perhaps some old school-fellow with a better memory will kindly correct me. I could give every note of the music from memory, but very few, except some of the bigger boys, could reach the low A chimed forth by "The mighty Torn" at the close. That winter I was a Fifth M'Culloch boy, and began to fall in love with the sweet poetess, Mrs Hemans. But I was very still at arithmetic, and all the help I got from musical Mr Duncan was, "Get the rules, get the rules." Not understanding the rules well, I made little progress in fractions or the rule of three, but fell in love with geography, and often at intervals, when all other boys were at their outdoor games, I would gaze upon the map of the world, comparing the continents and oceans, rivers and mountain ranges.

Mr Duncan for some reason soon left, and we had some three or four teachers that winter, none of whom stayed long. This was not favourable for steady progress in learning, as no sooner were we initiated in the ways of one teacher when another came with different methods. So when April came with green fields I was heart glad to get back to my beloved Drachlaw to be beldie a second summer. Next two winters I was not a schoolboy but a cattleman and turnip-puller, first at Forthie then at Drachlaw. Then in the winter of 1856-57 when I had grown to be a bairn, I went back to the Shiel School to be taught by a Mr Cameron, the best teacher I ever had, especially in regard to arithmetic. Knowing I was fond of reading and geography, but backward at arithmetic, he came and sat down beside me, and instead of explaining "Get the rules," he said, "Now are there words in the rules you do not understand?" I replied, "Yes sir, that's just where I am at a loss, and no teacher ever explained said rules to me." "Well," said good Mr Cameron, "that's just what every teacher should do," and beginning at reduction he kindly explained in a patient and homely way all the words that had baffled me. If my teacher had done that when I began arithmetic what a difference it would have made to my progress! Mr Cameron was very good-tempered, hardly ever used either cane or tards, saying punishment tended to brutalise high-spirited boys and create bad feeling between teacher and pupils. He was a firm believer in plain Scotch fare, and speaking of the "Cottar's Saturday Night," he enlazoned that line, "The halesome parriage, chief o' Scotia's food," saying, "Remember this, all of you, there is, in well cooked oatmeal and milk all the nourishment the human system requires, and that in the right proportion, for bones, muscles, sinews, and brains." Many a good lesson did we get from our good all-round teacher, Mr Cameron. (Strange to say, I have forgotten his Christian name, but I can never forget his practical Christian principles, nor the look of good common sense on his kindly Scotch features.) He was the last and best of my Shiel school teachers, whose memory I will revere while life lasts. He stayed longer than most teachers, his mother keeping house for him, but at length he left, and I lost sight of him. If he is alive he must be almost a centenarian. So that finishes meantime my reminiscences of my schools and schoolmasters.

**A Dame School.**

Mr Christie, whose narrative of experiences of the Shiel school we are sure readers have enjoyed, is closely connected also with a rather famous dame school that was carried on at Shielburn. It was begun about 80 years ago by his mother in a little thatched house, a but and a ben, which both as school and building has been for long out of existence, and we are favoured with a little account of it from his fertile and obliging pen. It contains family as well as school history of a highly interesting character, and will be read, we are sure, with an interest and sympathy begot of the gallant effort of Mr Christie's widowed mother in making her honourable way through the world with a family that has since then made a deep and beneficial impress on all the public life of Turriff and district—

Our father, William Christie, who was a dyer, or "dryster," as it was pronounced eighty years ago, near Lumsden village, in Anchindor, in the 'thirties and 'forties of last century, passed away after a painful attack of influenza in the winter of 1847-48, his age only 52. Our widowed mother, whose name was M., removed at Whitsunday 1848, with her three children, Peter, John and Maggie, to the small hillside farm of Shielburn, Inverkeithnie, tenanted by her father, Mr Tocher, a native of Anchterless. A weel cottage was there built, close to the heather, for "Margie Tocher, the widow," and her three hopes. At that time
I was only a few months over seven years of age, but well do I remember seeing Johnnie Cormack, the master mason, and the “muckle, grim, snuffy carle” with whom I helped to make clay four years after Drachlay. They generally wrought alongside of each other, and took their “pinch” the better. When the clay-built walls were finished, Uncle Andrew, brother of our mother, did the “richt wark,” and Uncle Willie laid rough stone flags in the “but-end.” The kitchen floor was a damp clay, not very comfortable for the feet of her wee scholars in winter.

The wee schoole was thatched with broom grown on the hill nearby, and very soon it was known that Meggie Tocher was to open a school for children, teach them reading and writing, and the girls sewing, knitting and crocheting. The scholars got play one Monday each fortnight, as that was “washing day.” Meggie Tocher was thus very busy, for she also engaged in harvesting for farmers near by, and strove hard to bring up her three children decently, uprightly and honestly. When I was herdie to grandfather in the summers of 1849 and ’50, I saw the wee Ste-heidit scholars coming along dyke sides from the Howe o’ Tollo, and others from the Pitglassie or Cliftbog districts, tripping through a long stretch of heather. Some passed and re-passed me daily when herding, and a funny little incident happened one day over a certain lesson in the Third Mc Culloch, written by one named Todd. The last sentence of said lesson read thus—“I see, I see, I see,” said the little man; “I see—Todd.” Of course the Shielburn scholars thought “The mannies had seen the tod”—the fox! and there was great merriment over it.

The Shielburn schoole was carried on for about a dozen years, till we Christies removed to Turriff at Martinmas 1861. Our dear industrious mother, the teacher, was a victim to chronic bronchitis, perhaps brought on by the damp floor of her cottage schoole and her heavy fortnightly washings. She died in Turriff in the summer of 1870, at the age of 57, and was interred in the churchyard of Auchterless, where her father and mother and generations of Tochers lie. Most of her Shielburn pupils, I believe, have also passed away, but I know two or three in Turriff who over 70 years ago attended “Maggie Tocher’s schoolie,” and who have very kindly recollections of their teacher. One who like myself was a cow herdie tells me he “lang, lang wore sarks o’ Meggie Tocher’s makkin.” Not a stick or stone of that wee cottage remains now. I am told the stones are all built into a dyke alongside a new roadway. But that wee clay biggin’ is photographed on the brains and hearts of the three Christies reared by a gracious, loving, widowed mother there, in early life, and now all far over the allotted span, but with vivid recollections of the thirteen and a half years when we called that Shielburn Cottage our “Home, sweet home.” We boys were not our mother’s pupils. We were cow herdies in summer, and sent to the Shiel school near the Shiel Inn, in winter, nearly three miles west of Shielburn.

In addition to the Free Church school at the Shiel, there was for a time a Free Church school at Mossconal, Auchingoul, in the parish of Inverkeithnie, although it was under the management of the Free Church of Forgue. It was a school more than sixty years ago, but more than forty years have passed since it was closed. It was for long taught by Miss Fordyce, who is still recalled as a highly efficient teacher. The building has been let to two farmers for some years and part of it is used as a mission hall on Sundays; while it was still a school Mr Mathieson of the Free Church, Forgue, held services in it once a month.

An educational benefaction has an intimate connection with the parish. Mrs Isabella Milne of Pitglassie, widow of Rev. Jas. Milne, of Inverkeithnie, bequeathed a sum of £1700 for, among other purposes, founding a bursary at Aberdeen University of the value of £12, tenable for four years in Arts, and thereafter, if the bursar so elects, during his Divinity curriculum. The minister of Inverkeithnie is trustee and patron. It came into operation in 1884.
botany under Mr Bott, and this is the earliest introduction of science into the curriculum of an Elementary School I know of.

We received absolutely no vestige of Physical Instruction or Physical Drill—we were not even taught to keep step in marching or to form fours or to do the turnings.

Our drawing was confined to map drawing, diagrams of the Solar System, Tides, Phases of the Moon and Planetary System—all on slates.

Nothing like Freehand, Geometry, Sketching, Perspective or Model Drawing was ever mentioned.

It seemed that the main reason for a child's attendance at school was to gain sufficient ability in the three Rs to enable him to pass the examination by the Government Inspectors, and thus help him to earn the highest grant for the school. Little or no notice was taken of a child's health, comfort or well-being; that was someone else's business, certainly not the schoolmaster's.

At Walton School the heating was done by a stove set in the middle of the school. A long pipe reached up to the centre of the roof. Fireplaces were at each end of the large room, but these were used for school times; they might be used for the Sunday service in extreme weather. It was the duty of a Pupil Teacher to light the stove fire and to keep it going.

In winter, at dinnertime, those children who came from a distance were allowed to sit round the stove to eat their food, but afterwards had to go out-of-doors for the rest of the hour. No milk was provided free or for purchase—similarly no food was available—everything had to be brought from home and nobody cared whether you brought anything or had sufficient. No drinking or washing water was available on the premises. A swill or a drink could be got from a well on the other side of the railway, at least three hundred yards away. This nobody cared whether you brought anything or had sufficient. No drinking or light was allowed to sit round the stove to eat their food, but afterwards had to go away until 8 o'clock or later, having had no meal since dinnertime. I had then a meal as I had to be up and off for school by 8.15 next day.

School was never closed at twelve and four punctually. Every class had to quite finish its work before it was allowed to go and then the master would think of stopping thirty, sixty or more minutes longer, struggling back to school and then he would depart for his own dinner or tea—and would return in due course ready to resume the fray.

The Pupil Teachers often lived too far away for them to go home for tea before their lessons after school. If the master was late in going for his tea he was also late in coming back to instruct his Pupil Teachers. Often they did not get away until 8 o'clock or later, having had no meal since dinnertime. I had then a walk of two miles home and was lucky to get there by 9 o'clock. Then after my first and last good meal of the day, I had to get on with my homework, study and lessons for tomorrow. Bedtime came at last with much too short a time left for sleep as I had to be up and off for school by 8.15 next day.

As a closing aspect, reference must be made to the lack of interest and guidance taken in a child when leaving school—in those days at twelve years of age. Nobody seemed to bother about what happened to him. He just had to take up any job that happened to be going at the time. Perhaps I was fortunate that a Pupil Teacher was wanted at Walton School just when I was available, and that I had a reputation of being a pretty good scholar. I just dropped into teaching—I had no special wish or desire for teaching and might just as easily have dropped into farming, gardening, mining or some sort of engineering. Of course, the teaching facilities and pay of today are tremendously improved, but then it was hard labour with little pay. But there was nothing better in those days and we had to endure it.

A Higher Grade or Grammar School such as are available to all today was rung at 9 o'clock and 2 p.m., but he never appeared until fifteen or twenty minutes later. In the meantime the children straggled into school as they arrived and awaited his advent under the charge of Pupil Teachers. In the morning a short service, and in the afternoon a brief grace opened the proceedings. Scripture was always the first lesson up to 10 o'clock.

We noted with anxiety each morning which trousers he was wearing. If he had a tight fitting pair of a check pattern we knew that he was certain to be in a bad temper.

The reading lesson invariably developed into a bald, boring sort of grammar lesson. We were taught to analyse sentences, sometimes very involved, principal and dependent, and to parse words, number, person, gender, case, transitive, regular, irregular, mood, tense etc.,—all very boring and seemingly of little use to us, but which some have found very useful in after life.

School was never closed at twelve and four punctually. Every class had to quite finish its work before it was allowed to go and then the master would think of stopping thirty, sixty or more minutes longer, struggling back to school and then he would depart for his own dinner or tea—and would return in due course ready to resume the fray.
far with them without troubling the blacksmith. The iron-work still did not amount to much. Hole was talking of a time not more than forty years ago or so, but it was probably one of the advantages of dung-carts that the village wheelwright could build them without going often to the smith. These carts were, I suspect, one of my grandfather's staple products. Was it not in a dung-cart of his build that a certain well-to-do Frensham farmer was in the habit of driving to Farnham market? At that time part of the road he would traverse was an uncertain heath-track, and farmers had not risen to the grandeur of a dog-cart or the respectability of a gig. Even in the matter of wheel-tyres their tackle required but little smithing. At least it is likely that the wheelwrights at Farnham were able to put on the "strakes" without blacksmiths' help; for I think the apparatus for that job, as I found it in 1884, was much older than the smithy. Anyhow, smithy there was not, any nearer than Frensham, to work for this old shop at the time referred to now.

A little before the day of railways my grandfather had a contract to keep the "road-waggons" in order for his district. He used to go to his front gate, on the main Farnham street, to listen for their coming across "The Downs," that is to say, along the Hog's Back. When the waggons were coming down the incline by the "Victory" Inn, though still three miles away, they were audible to my grandfather at his gate. He could go indoors then—have some supper probably. The waggons got to Farnham, where it was his duty to look to them, about ten o'clock at night. The place where they put up is now Messrs Mardon & Ball's "Wagon Yard Joinery."

In connection with this same business one Johnny Gunner has been named to me, as the only workman my grandfather could find in the neighbourhood able to deal with road-wagon wheels. Those large and cumbersome vehicles, meant to carry the sort of goods now loaded on railway-trucks, had hind wheels six feet high or more, and very wide. And since Master Gunner

This is the way that men in the shop were spoken of by the aunt mentioned above. Again and again in her chatter she told, as if with esteem, of "Old Master Whiten," his position being that of a skilled craftsman. A comparatively unskilled labourer was spoken of as Old Henry.
was singular in his skill to handle them, it is not surprising if he took advantage of his position. Several times he was discharged, but each time he had to be re-engaged. He lived at Hale, on the opposite side of Farnham Park. In order to get home the more quickly he used to climb the fence about a furlong away from the shop and strike across the Park. A track through the turf there was pointed out to me by my aunt as "Johnny Gunner's Path."

In 1865 the business, with the stock-in-trade, was made over to my father, the shop and dwelling-house being conveyed to his sister and to his brother John, who had worked in the shop but was paralysed at about that time. But all this was merely a precaution. Wishing to spare his children the legal expense of legacies, the old man chose to distribute his property amongst them during his life-time. I don't think it made much difference to him or to them; Years afterwards I saw him (John too) in the old house. He kept the accounts for my father—I remember him putting his pen across between his lips, so as to have two hands for turning over his ledger. I thought it fussy of him to complain if I happened to shake his table.

But, at some time before this transfer, he had taken another step in the development of his business, building smithy and timber-shed at the back of the premises, where the pigsties used to be. The smithy was the one I remember and sometimes worked in—the one that was burnt down about twenty years ago; and the first smith there was probably Will Hammond, who had already worked at Frensham for my father's brother Richard. All that is told about Will Hammond in the following chapters supposes this smithy my grandfather built to be the scene of his lofty-souled though lowly-minded labours. Let me give here a sketch-map (not to scale, but from memory) of the premises at this time, when I was but a child.

From the bench under the smithy window, where he "tapped" his nuts or did his painstaking filing—from this bench or from the open upper half of the door beside it, Will Hammond had view some thirty feet down the sloping yard to the back door of the wheel-shop below. Or, if any job was brought up the lane outside from the street, that too he could not fail to see, for there
was no other way to the smithy, unless you went through the wheelwright's shop itself—the original site fixed on in 1706—and up the steps at back of it. "Up," observe. Everything was on a steep incline. The floor of the smithy was up the hill, well above the level of anybody's head in the street. And behind the premises the ground continued rising, through hop-gardens, until Farnham Park was reached; and still in the Park it rose as far again—a fine and very peaceful acclivity.

In the succeeding years, while I was growing up, a number of changes in the premises and neighbourhood left the general quietness little if at all disturbed. At the spot marked (A) in the plan a "furnace" for hoop-tyres was built, superseding the old circle in the middle of the yard; at (B) a shed was put up for holding iron bars, bundles of hooping, plough-castings, drug-bats, and other odds and ends in iron; while at (C) my father had an office erected, doubtless when his own father at last gave up keeping the books for him. This diminutive place, with a smaller "nail-loft" up some steep stairs, became my own private refuge for years and I remember it with affection.

The biggest change, however, was the beginning of building in Farnham—one of the first moves towards modern conditions in fact, in all the recent growth of that town; and it was my father who opened the door for it. With dreams of going into the timber-trade, for which indeed he had knowledge enough if not enough capital, he was on the look-out for a timber-yard; and an opportunity came, when a strip of hop-ground stretching from the back of East Street right up to Farnham Park palings was sold to him. The greater part of this he laid out as the "South View Building Estate," reserving to himself one corner, near to his shop, for the desired timber-yard. Here he made a saw-pit, and put up various sheds and a temporary workshop; here he projected who knows what other developments? It was too late. The year was 1883. In 1884 he died; and I, for my part, did not know how to carry on even the ordinary business. I had no more than a month, if as much as that, of my father's guidance in it. He was, in fact, sickening for his last illness, when I entered the business in 1884.
Ruskin's *For Clavigera* had made me think meanly, if not meanly enough, of the school teaching which had been my work since 1878; and under the same influence of Ruskin's book I felt that man's only decent occupation was in handicraft. I shudder yet smile to think now what raw ideas swayed me then; yet the enthusiasm so ill-reflected in them were the sweetness of life to me in every disillusionment that was to come. They saved me from the worst sordidness of business. Finishing my school work with the first term of 1884, namely the day before Good Friday, I took four days of rest (I was to have no more vacations for many years) and began work at the shop on Easter Tuesday.

I don't remember what I did that day; but I do remember the grey and searching east wind that faced me in the street at six o'clock in the morning. There was a little over a furlong of street for me to travel, familiar enough, but I had never before seen it at that early hour. I have a vague idea that my brother went with me those first few mornings, to protect me. It is what he would have done. But I did not realise that. With everything to learn I was not much good; but I could at least deputise for my father, who seemed so poorly, to the extent of unlocking the shop at six o'clock in the morning and locking up again at six at night.

This was a rather more complicated affair than it need have been. My grandfather, when living in the adjoining house, had quite naturally got into his shop from the back. He had not needed to enter the street at all. My father, also living in the same house until he was married, had never altered the arrangement. But, for me, it was awkward. I couldn't go through the dwelling-house, which was let. But the front doors of the shop had never been made to be unfastened from outside—from the

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1 See p. 209.
The result was that, in the depth of winter, every man who went to work at six in the morning, and most artisans did, had to find his way without any light. To be sure, there were moonlight mornings. Sometimes, too, snowy roofs showed clear enough under glittering starlight. But, on the other hand, there was freezing fog, there was the blackness of dense rain. One foggy morning I lost my whereabouts in the familiar street; no building could be seen nor any sky distinguishable; nothing but a slight difference in the feel of the pavement under my feet told me that I was passing So and So's shop. Another time a little glimmering light that met and passed me proved to be a lighted candle-end between the fingers of a chimney sweep, against which one might otherwise have uncomfortably blundered. And one black morning I walked through and was conscious of what I took to be the aura of a man on the pavement whom I never saw—probably a motionless policeman.

Yet these dark mornings pleased me, as I have said, better than the summer mornings. For, when at last I had got to my office and made up a fire in my little stove, I could usually be sure of an uninterrupted hour for my own pursuits. No man came asking me to look out nails before daylight; there was small need to wander across the dark yards and into the ill-lit shops at that hour. Under the naked gas jet—burning "horny" because full of dust—my office desk was a sort of heaven for me. Sometimes, like a good boy, I spent that precious hour at accounts, oftener, it was given to literary exercises—imitations of Thoreau or Emerson or Carlyle—anything that seemed to uplift me above the sordid cares (as I thought them) that would come with daylight, so pale and chilly too.

There was another reason for preferring dark mornings. With my mind so priggishly puffed up, I was glad to miss the "Good mornings" of other wayfarers not recognisable in the unlit street. I wanted to be alone. Nay, so great was my passion for solitude that sometimes, if I had time and the weather allowed, I digressed into a lonelier though slightly longer route. From the sticky hop-ground footpath at the back of East Street I might hear (if I could not see, across the night) the trees in Farnham Park, keeping up their everlasting noise in the wind. Then I felt nice and poetical. I thoroughly enjoyed getting afterwards into my gas-lit office and flattering myself that I was writing like Thoreau.

Getting up in the morning was not my strong point, for my evenings were too interesting and I could not bring myself to go to bed quite soon enough. Indeed, there was no other way of securing a little time. Every night I wound up an alarum, and saw to it that some coffee had been put ready for warming up while I was dressing the next morning; yet often I lay too long after the alarum, skipped into my clothes without waiting for the coffee, and swung out into the street, late again and cross. But tobacco was a help. Coffee or none, I always lit a pipe for that four minutes' walk; and I have never again since that was given up enjoyed a smoke so much. At that early hour whiffs from other men's pipes were good to smell. Often, on getting to the shop, I found one man there. He had walked from Wreclesham—two miles, and he was always the first and always punctual. Several times, when he stepped into the newly opened door and met the sudden gas-light, it was startling to see (what had been invisible in the darkness until then) a white beard coming into the shop instead of a black one; only, pricklings in my own moustache had warned me what to expect.

Ten or twelve degrees of frost would make little icicles from my breath even in that short walk of mine; and naturally after his two miles the blacksmith looked frosty.

He was so regular and so true he would have been a first-rate "knocker-up" for me; but seniority gave the claim for that to Will Hammond. It was Will's duty, as he passed my door, to ascertain if I had left a bit of string on the knob of the bell: if not, he would know I was not gone and would ring for me. A horrible thing it was, to be wakened out of sleep by that peal; but it happened sometimes, the very alarum having failed to arouse me. I grew to hate that alarum. On Saturday nights, instead of winding it up, I used to shake my fist at it, as it were tauntingly, because it would not be able to disturb my Sunday morning.
MY OWN START

This early morning work I kept up for seven years, with little but week-end holidays besides the Bank Holidays. Longer indulgences were not for the working-classes or anybody who aped them. But there were times—too many of them—when heavy bronchial catarrh made me almost unable to cross the room; and at such times my brother—as if he had no exacting days of his own—would deputise for me at six o'clock in the morning. He had one odd experience. It should have been explained that, as we had at home but one door into the street and no latch-key to it, the custom was to lock the door behind one and put the key back through the letter-box for those inside. My brother did this one freezing dark morning, and then heard the town-clock, up in the dark, strike four. He had locked himself out two hours too soon. If you think he woke the household to be readmitted you don't know the sort of man he is. Other people's convenience was never sacrificed for his own. He went for a walk to Caesar's Camp, three miles away, where he found the silence and darkness almost uncanny. There must be few if any other men who have ever been there at one o'clock instead of at four, and it may have been about the same dark winter morning.

It was probably in 1885 that we left off on Saturdays at one o'clock instead of at four; and it may have been about the same time (but I have no recollection of it) that half past five was substituted for six as the normal closing time. If the shop was "making over-time" we took half an hour for tea and then went on again from six to eight. Including meal-times, this gave us a fourteen-hour day. The meal-times, for breakfast half an hour (from eight to half past); for dinner, from one to two. The ringing of Heath's bell across the street (Sturt had none) was the signal. To see the shop empty at the first stroke for dinner was to know the source of that metaphor for quickness, To Go Like One O'clock.

Though the normal hours were too long, the men were glad of over-time. In this connection it should be pointed out that in those days a man's work, though more laborious to his muscles, was not nearly so exhausting yet tedious as machinery and "speeding-up" have since made it for his mind and temper.

MY OWN START

"Eight hours" to-day is less interesting and probably more toilsome than "twelve hours" then. But when men welcomed over-time it was because with their 2s. 6d. an hour they were underpaid and were glad to add to the money. The addition was at the rate of 6d. an hour, I think. One odd thing, which I never could understand, was that jealousy which caused the men to regard it almost as a right for all to have over-time if one did; so that however pressed the smiths might be I hardly dared ask them to work longer without giving the same treatment to the woodmen. A pack of children, I sometimes thought these grown men, all older than myself.

IV

THE WHEELWRIGHT'S SHOP

To say that the business I started into in 1884 was old-fashioned is to understate the case: it was a "folk" industry, carried on in a "folk" method. And circumstances made it perhaps more intensely so to me than it need have been. My father might just possibly, though I don't think he would, have shown me more modern aspects of it; but within my first month he took ill of the illness he died of five months later. Consequently I was left to pick up the business as best I could from "the men." There were never any "hands" with us. Eight skilled workmen or apprentices, eight friends of the family, put me up to all they could; and since some of them had been born and trained in little old country shops, while this of my father's was not much better, the lore I got from them was of the country through and through.

The objects of the work too were provincial. There was no looking far afield for customers. Farmers rarely more than five miles away; millers, brewers, a local grocer or builder or timber-merchant or hop-grower—for such and no others did the ancient shop still cater, as it had done for nearly two centuries. And so we got curiously intimate with the peculiar needs of the neighbourhood. In farm-waggon or dung-cart, barley-roller, plough,
the fingers pinched! 'Tis easily done. Unless you are quick, before you know it two boards, heavy with sap, may have nipped between them a quarter of an inch of your skin lovingly, and then you have a small black "woodlouse" of a pinch! With a strongish helper or two, straining, heaving, gingerly placing, you raise the newly-cut stuff in orderly stacks. It needs care, or over the stacks go. The very first thing of all is the "bearing," to keep the lowest plank a few inches off the ground so that the air may play freely under it. Anything will serve for a bearing—old shafts, axle-beds, anything; but the several pieces of it must be near enough together to prevent any sagging of the planks piled on it. And lest these planks should twist, the bearers below them needed to be all quite level—"true out of wind" or of twist. Besides, any unsteadiness at the base would jeopardise the whole erection. Afterwards, similar care had to be bestowed on the whole stack to the very top, in the case of every fresh plank or board added to it; and, atop of all, heavy weights were advisable to keep the casting and twisting of the grain within bounds. Nothing would quite prevent it, but with care in the stacking it could be held within reasonable limits. No two planks might touch; the sap slowly escaping would have rotted them. It had to be dried off by the air. To secure this, narrow strips of board were laid between plank and plank, board and board. Even so, elm boards were liable to "sweat." For steadiness it was well to build two stacks at a time, side by side, so that here and there a longer strip might be laid in, tying them together.

A prudent man, handling a plank, took care not to be the first nor yet the last in letting go his end of the plank, unless due warning was given. For either he might jar the other fellow's hands, in which case he was likely to hear of it; or else his own would be jarred—and there were pleasanter ways of warming them. As the stacks were best built out of doors, to get all the air they could, a sort of roof was extemporised over them. Nothing clinging would do—no old rick-cloth to tie too close; but any old bit of fencing to keep off the rain or the summer sun. A shady place was best for the stack, but March winds did it good. Before those winds began every plank should have had a strip nailed across each end to keep it from splitting as the weather grew dry and warm. For these strips—bits of old board chopped out—I found clout nails the best. When all these things had been attended to the timber might be left with an occasional glance to see that all was well, until the autumn or early winter brought the time for putting it away permanently. In its permanent quarters it was stacked again, but without strips. The slow years—a year for every inch of thickness was none too much—gradually finished the seasoning and the timber was fit for use.

I never heard of the timber, well managed in this old, deliberate, village way, being "too dry." That fault appeared in later times, when attempts were made to hurry the process. Certainly, a capitalist cannot nowadays afford to have his money lying idle so long. Moreover, modern vehicles are not wanted to last like the ancient waggons and dung-carts, built for a life-time. But in the old shop, men thought nothing of timber eight or ten years old, albeit it meant money locked up all that time.

Clearing up after the sawyers included dealing with the "slabs"—the thin outside pieces, two from each tree. The ash slabs, truly, could be used to the last inch and were properly seasoned therefore. But the oak slabs—mostly useless sap—and the elm slabs—thin and "casting"—were thrown into a heap, or sold for firing or for building a pigsty or what not. A penny a foot "run"—a foot of length—was the selling price. I forget what was done with the green sawdust, to clear the pit; I think it was sold for bacon-drying at fourpence the sack.

Winter work and out-door work, all this, and that was a fortunate thing in more ways than one. As the farmers could not be persuaded to have their tackle looked to until they actually wanted it in the spring or the summer, the wheelwright's yard was nearly empty in the dark days. There was plenty of room for the sawyers therefore, while young men to stack the planks and boards could easily be spared from the shops or from the smithies. You couldn't begin stacking timber much better nor longer than the season of the year, since the wind and weather could take away the end of a year-

SEASONING

before eight o'clock breakfast. Then, with a welcome hour's rest at dinner time, there was a warmish job (save for your feet) until dark, at half-past four or so. It wasn't bad fun either. Rain might stop it, or heavy snow; on the other hand, you grew as intimate as any shepherd with frosts that covered the planks in thin coating of ice, with still silence of fog, with cutting winter winds all across the yard. The work called for too much attention to be dull; only, as the monotonous afternoon began to grow darker, arms ached a little and brains felt drowsy. The day had been pleasant; yet it was a good thing to knock off. Already a star or two was showing. Against the on-coming night the sparks from the blacksmith's chimney were suggestive of in-doors and warmth.

IX

WHEEL-STUFF

In the same winter weeks, while the wheelwright's trade was quiet and the master was superintending the sawyers and helping the less skilled men stack the boards and planks out-of-doors for seasoning—in those same weeks, within doors, the older and trustier men, who needed no supervision, were busy with the new spokes and felloes. (In this word leave out the o. Make the word rhyme to bellies.) Well experienced in all wheels, and understanding what was sure to be wanted for waggon or cart in years to come, these men required no telling what to do. They knew well enough. All the wheel-making lore—of the country-side for generations guided their judgment.

The felloe-blocks from the saw-pit required roughly shaping while still green, before they too could be stacked up for seasoning; for although hard enough in all conscience they would be far harder years hence, when the sap had dried out of them and they came to be used. Now was the time. And much remained to be done to them. The sawyers had but halved the smaller blocks, putting a longitudinal cut down the middle, so that now there were two pieces, each piece half cylindrical. It was the wheelwright's business to chop each of these pieces into a felloe, as large and long as the timber would make. Or if, as sometimes happened, there had been material enough in either half to make two felloes, still the sawyers (following a line pencilled for them by the master out in the yard) had cut this one curved line. It was left to the men in the shop to trim the felloes down sideways and to shape out the rounded back to the outer piece, the hollow belly to the inner.

The tools were axe and adze and sometimes hand-saw, and the implements (besides a square) a chopping block and a felloe-horse. Yet it is in vain to go into details at this point; for when the simple apparatus had all been got together for one simple-looking process, a never-ending series of variations was introduced by the material. What though two felloes might seem much alike when finished? It was the wheelwright himself who had to make them so. He it was who hewed out that resemblance from quite dissimilar blocks, for no two felloe-blocks were ever alike. Knots here, shakes there, rind-galls, waney edges (edges with more or less of the bark in them), thicknesses, thinnesses, were for ever affording new chances or forbidding previous solutions, whereby a fresh problem confronted the workman's ingenuity every few minutes. He had no band-saw (as now) to drive, with ruthless unintelligence, through every resistance. The timber was far from being a prey, a helpless victim, to a machine. Rather it would lend its own subtle virtues to the man who knew how to humour it: with him, as with an understanding friend, it would co-operate. So, twisting it, turning it "end for end," trying it for an inch or two this way and then an inch or two that, a skilful wheel-maker was able to get the best possible product from his timber every time. I don't think I ever afterwards, in the days of hand-saws, handled such a large proportion of superlatively good felloes as used to pass through my hands in those days of the axe and adze. Perhaps the sawn-out felloes look better—to a theorist from an office. But at the bench you learn where a hard knot may be even helpful and a wind-shake a source of strength in a felloe; and
WAGGONS

The hind-carriage, on the hind-wheels, came next, carrying a "pole" (like a long arm) to hold on to the fore-carriage centrally so as to be drawn along obediently behind it.

With a special and simple apparatus these two "carriages" could be, and often were, used without the third portion. For, when put together, they made a sort of trundling framework, as high in front as behind, very useful for loading hop-poles for the Farnham hop-grounds. This was every way an advantage. The hop-poles packed better than they would when put together, they made a sort of trundling framework, of "gettin' her on to the waggon;" high in front as behind, very useful for loading hop-poles for the Farnham hop-grounds. This was every way an advantage. The hop-poles packed better than they would have done had the third portion—"the body"—been on the waggon; further it was worth while, for the sake of the horses, to dispense with the weight of the body if possible, seeing that the complete waggon, empty, weighed eighteen hundredweight or so. I am talking of a "three-ton waggon"—to carry three tons that is.

The body, too often spoken of as the bed, had its head, tail, waist; it lay on pillows (we called them "pillars") and bolster. When, new-made, it was at last hoisted on to its wheels, we spoke of "gettin' her on to her legs"—using the feminine gender, perhaps in allusion to the complexity of the structure. Two "pins" held the body in its place; a "round-pin," of 1\(\frac{1}{4}\) inches diameter or so, fixing the head down to the fore-carriage; and a tail-pin (about five-eighths of an inch) sufficing to keep the tail from jolting up off the hind-carriage.

On recalling it I find myself wondering that a waggon was ever got together at all in my workshop there, only to find that it was too wide to be got out of the door. And when the waggon, having been taken to pieces in the shop, was put together again in the yard, there now proved to be too little room in the yard for turning it round, and it had to be got into Farnham Park for more room.

This story, I will admit, had probably been invented by a wheelwright to pour contempt upon the craft of carpenters. Certainly an idea prevailed—not wholly without justification perhaps—that while any man able to make a wheel knew enough to be a carpenter, on the other hand a carpenter could not do wheelwright's work, for lack of apprenticeship. In this connection a strong prejudice was felt against any casual who claimed to be wheelwright and carpenter both. Such a pretension was almost enough in itself to prevent the wretched tramp from getting a job in my shop—would he not prove to be Jack of all trades and Master of none? Unshapely cart-work by carpenters sometimes forced its way under my notice, and served as a warning against the employment of such men.

WAGGON-LOCKING

A pleasant story lingered in the shop, and was now and then told again, about a estate carpenter employed by Bishop Sumner at Farnham Castle. This man had built a new waggon in a workshop there, only to find that it was too wide to be got out of the door. And when the waggon, having been taken to pieces in the shop, was put together again in the yard, there now proved to be too little room in the yard for turning it round, and it had to be got into Farnham Park for more room.

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called this kind, might be driven down to the very head, through inch elm into oak, with proper hammering. If sometimes a nail curled over instead of entering, or if it insisted on turning round so that the board was split after all, the fault was that the hammering was feeble or indirect. The men could not help that. They could not put into my wrist the knack that ought to have begun growing there five years earlier.

This same difficulty in hammering, which I never quite overcame, made me a poor hand at “knocking out dowels”—another job for boys. A dowel, with us, was a peg holding together the joints of a wheel-rim where the feltes meet. Heart of oak was not too tough for it; in fact, my father, superintending some spoke-cleaving, had carefully saved the very innermost cleft, all torn and ragged, for dowels. About the size and shape of a sausage, they were made by driving prepared lengths of oak through a “dowel cutter”—a sharp-edged ring of steel set in a block for that purpose, and a man with a heavy mallet could soon knock out a set of dowels. But, in my hand, the mallet was apt to fall a little sideways, so that the dowel, when finally slipping through on to the ground, proved crooked and useless.

Of course I had far too many irons in the fire—that was one part of the trouble. I was trying to learn four or five trades at once; and “intellect” fooled me by making them look simple. Indeed, so much of hand-work as intellect can understand does have that appearance, almost always to the undoing of the book-learned, who grow conceited. How simple is coal-hewing, fiddling, fishing, digging, to the student of books! I thought my business looked easy. Besides playing “boy” to the woodmen I went sometimes to help the blacksmith “shut” a tyre, and I always lent a hand at putting on tyres. Painters there were none, but as paint was used by the wheelwrights after they had finished a job, of course I came in for a little rough painting.

I hadn’t strength enough in my arm to grind up Prussian-blue for finishing a waggon-body. (Ah, the old muller and stone under the skylight in the loft, where in summer time one or two cabbage-butterflies would be fluttering! All the edges of the stone were thick-encrusted with dry paint, left behind by the

flexible palette-knife and the shavings with which the middle of the stone was cleaned. The bench and the roof-beams all round were covered too with thick paint, where brushes had been “rubbed-out,” for cleaning them, during many years.) I knew how to make putty, “knocking it up” with whiting and oil. I was familiar with “thinnings” of “turpentine.” I kept watch on the kegs of dryers, Venetian-red, and so on, to see that paint was not drying on their sides but was kept properly scraped down into the covering puddle of water in the keg.

A number of duties fell on my shoulders in which nobody could guide me in my father’s absence. During his illness and after his death I had to be master, as well as boy. Amongst other things was the work of store-keeper. Not only timber, iron and paint were wanted; axles and half-axles known as “arms” were kept in a corner of the body shop; and in my office, under lock and key, were the lighter kinds of hardware. Many times a day I was called away from my own job, whatever it might be, to get nails, screws, bolts, nuts, “ridgetie” chains, bolt-ends, “nut-heads,” or what not. Sometimes, with hammer and “hard-chisel,” I cut off lengths of chain for a tailboard, sometimes a longer length of a stouter chain for a “drag-bat,” or of a slighter chain for a “roller.” It was so small a shop that these interruptions were after all not too frequent. And anyhow I was proud to feel that I was doing what my father would have done. But of course I had to buy all the stores; to write orders for them or to interview commercial travellers; to overhaul invoices and pay the bills. As I said before, I do not remember that any commercial traveller ever tried to take advantage of my ignorance; but it is dreadful to think how much temptation I must have presented to them, running from saw-pit or smithy or paint-loft and aping the man of the world, in the hope that they might not notice anything odd about me.

Whenever a job was finished I went with slate to the men who had taken a hand in it, and wrote down what they had done to it, what materials they had used, and so on. Until I began to know the technical words, and the Surrey dialect of the men too, this was a great puzzle to me. How was I to know that when
the old blacksmith spoke of a "roppin cleat" he had meant wrapping plate? or that a "shetlick" was the same thing that my father and grandfather spelt shutlock in the old ledger? The worst of it was that this gibberish (as it seemed to me) had to be charged up to customers. An uncle, long since dead, advised me to "charge enough and apologise"; but I have long known that I did not "charge enough." Hunting through the old ledger—my grandfather had started it—I was able to pick out and tabulate many customary prices. Not for many years did I introduce a proper system of "costing." In those old days there was a recognised price for much of the work. I believe that the figures were already antiquated and should have been bigger even at that far-away time; yet on the whole they served to keep things together while I was finding my feet. Customers seemed satisfied and continued sending work. Surely that meant that my charges were fair? It probably meant that they were found to be agreeably light. At any rate, the time came when I found out that most of the customers knew nothing about the meaning of the technical language of their wheelwright bills. Rather, they guessed what they would be called upon to pay and were pleased if I asked them for less—for they were surprisingly good judges of the price of things. Sometimes they complained—it was a principle with many—and enjoyed, I feel sure, the annoyance caused me. For I took it seriously, never dreaming that they were "pulling my leg." For my part I used to sigh, "How pleasant business might be were it not for customers!"

Of course I had no proper system of account-keeping, or the work could not have been done in the little time I gave to it. Not that I was quite primitive. I was at least a stage beyond the blacksmiths, who, weighing scrap-iron for sale (3s. 6d. the cwt. was the price), chalked up the hundred-weights on the door until they came to five, and then made a fifth stroke across the other four

1 Note F, p. 207.
XXIII

GETTING READY

The new wheel being finished and painted and puttied (a most important matter this last as will be shown) blacksmiths took it in hand for a time. Two jobs they had to do to it: first, to put on the tyre; next, to fit and fix the small iron bonds on the stock, one behind and one in front of the spokes. Note that these were what a wheelwright called "bonds." Customers, I know, sometimes used that name for tyres, but they sounded ignorant to me.

A great business was this tyreing—if possible deferred for economy of fuel, until a number of tyres could be put on in a batch, being "hotted up" in one fire. A new wheel—say a five-foot waggon wheel—required of course a new tyre; and to look out the iron bar to be used was the very first part of the performance. The new bar (new bars were about sixteen feet long. Two-and-a-half inches wide and three-quarters of an inch thick were common dimensions for a waggon tyre), the new bar was laid on the ground, where the blacksmith trundled the wheel carefully along it, so as to get the exact length. Chalk marks setting this out were best verified by a second trundling, for it would not do to have any mistake. As soon as the proper length was ascertained the bar was cut off to the chalk mark. By the antiquated method in my old shop this was a job for two strong men. The bar was slanted up on to the anvil, across the new chalk mark on it the smith placed a special "tool" (short cold-chisel held with twisted withie or iron rod for handle) and the smith's helper—usually a strong-armed young man—smote down on the chisel two or three resounding blows with a sledgehammer. Then the bar was turned over, to be partly cut through on the other side also. At last, being nearly asunder already, it was broken off by the smith with two or three blows with his hand-hammer. The short piece of superfluous bar was now a "bar-end," to be stacked with other waste pieces like it and sold.
which it was very needful to avoid.

"Scarfing" or "scarfing down" was the next operation. Each end of the bar was flattened out under the sledge-hammer, the smith himself always directing this, although his mate, strong-armed, actually wielded the sledge. Of course the end of the iron had to be heated for scarfing down; and while it was still hot a hole was punched through each scarf. Then, one end having been bent a little under ponderous sledge-blows, the bar could be inserted into the tyre-bender. By winding a handle on each side of this implement two men could get the tyre-bar bent into circle, but the smith was not one of these two. His part, more exacting, was to guide the bar through the bender, watching especially two points. First, unless bent with care, the iron might have a spiral twist, which it was very needful to avoid. Otherwise the wheel likewise would presently twist inside the tyre, and there was no doing anything with a twisted wheel. It could by no means be made to run true on its axle. Therefore, in first bending the tyre, the smith above all things tried to keep it properly directed through the bender, swerving neither to right hand nor to left. Across its diameter from side to side the tyre must be in one plane, "true out o' wind," all round.

The other point was to bend the bar approximately into a complete circle, bringing one scarfed end fully round to meet the other. As the bending progressed the smith could judge how it was going. By straining the bending bar up or down (sometimes a lot of strength was wanted—the man would leap from the ground so as to get his whole weight into the pull) the two scarfs were got near enough together. At last, there stood the half-finished tyre; a loop erect in the air resting on the rollers of the tyre-bender. The blacksmith steadied it on one side, until his mate could take the other side, skipping round from the handle of the bender he had been turning. Then the two lifted the tyre to the ground—ninety pounds of iron or so, according to the wheel it was meant for.

And now for the "shutting"—the welding. But first, to keep the two scarfs together, a nail was thrust through the holes that

had been punched in them. In memory I still see the men straining with strong shoulders, still hear them panting, still watch them doggedly hammering or leveraging, to bring two obstinate scarfs clicking into place, so that the smith may knock the nail in. But at last the nail can be hammered through and clinched over on the anvil. The tyre may be put into the fire for shutting now.

Yet there must be no hurry, for consider the smith's problem. At each stage the demands on his skill have increased until, now, a little error of his may spoil the wheel, in which case he will have an indignant wheel-maker to reckon with, to say nothing of other troubles. For observe, the tyre is to be put on hot, so as, when cold, its shrinking will tighten the wheel together. I sometimes thought its name came from that; it was to tie the wheel in an irresistible or rather an unshakeable clutch. Immense strength the contracting iron would have—I have seen thick oak spokes come over bent as no load could ever bend them, in the grip of a tyre too tight. On the other hand, if not tight enough a tyre would not pull the wheel together and would soon come off. A quarter or a half-inch more or less in the circumference might make or mar the wheel. It was therefore expected of a good tyring smith to know all the different possibilities in scores of different instances, and to get the right one. To get it. To intend it was not enough. The tyre could not be tried on first to see how it would fit. It had to be right within half-an-inch when it was once for all put on, red-hot. Therefore, expected of a good tyring smith to know all the different possibilities in scores of different instances, and to get the right one. To get it. To intend it was not enough. The tyre could not be tried on first to see how it would fit. It had to be right within half-an-inch when it was once for all put on, red-hot.

So the smith went to work with due deliberation. Long use indeed had made my old friend Will Hammond look nonchalant enough at tyring; yet he was always watchful, careful. Most unusual was it for him to have a misfit with a tyre. A hook at the end of a chain hung just above the outer edge of his forge, where sundry tongs stood up in the water-trough, and in this hook rested one edge of the tyre. The opposite side lay across the hearth, right in the glow of the fire. There, in short, were the two scarfed ends, now to be shut together. The nail had tied them together temporarily; but the problem was to weld them, expanded as they were with intense heat, so that, when cold,
the tyre should be of the right circumference, neither more nor less.

On these occasions I used to like to slip round to Will Hammond's left side, take the lever of the bellows out of his hand, and blow the fire, while Will kept it going with little tiny shovelfuls of coal (half a handful at a time) put on and patted down over the heating iron. Here, if anywhere, it was possible to chat to old Will, for here his impenetrable deafness seemed to give way a little, affording rare opportunity of friendly conversation; and to be so affectionate terms with such a man was reward enough, so lonely as he was too. So I stood blowing the bellows for him, carrying on some sort of shouting chatter into his least deaf ear (his hair close to my nose now and then smelt of soap) and watching how he worked his miracles.

The very act of blowing the bellows needed some practice, I found. In order to keep the heat in the iron regular the air blown up through the "true-iron" must not fail for a moment. On the other hand, to blow too hard was to blow the smith's coal unprofitably away. What was wanted was a steady blast that would die down when the iron was at last lifted on to the anvil. Then, there should be no more than a quiet flicker in the erst roaring fire.

The blacksmith never left his fire alone. Staring into it, in constant watch for "the heat"—that moment of moments when the iron could be properly hammered—staring, watching, he was for ever fidgeting about with it. Now, it seemed to be flaring too freely, and he sprinkled water on it with the little stubby heath broom kept in the trough at his right hand. Now he worried at the coal with his small sharp-pointed poker, bright of handle. Sometimes he would (with frown of great annoyance) poke out from the very heart of the fire a blazing mass of what looked to me like coal, and push it scornfully away over the further edge of the hearth, to fall on to the growing heap of clinkers there; for in fact this was but molten "dirt," not good.

1 Tanfield coal at that date. The coal-merchant smiled when I ordered "Tandsticker." But one word was as good as the other for me, and anyhow I got the right coal.

c. If such a piece of clinker found its way between the two ends of iron to be welded together, Will grew almost frantic until he had poked it out, lest it should spoil the "shut." This sort of thing went on amidst Will's talk of his parsnips or potatoes—how, digging some "taters" after a drought, he had got nothing bigger than "nuts and warrots"; or of the grape-vine over his father's cottage in Frensham village; or of a blacksmith neighbour working in another shop; or of—any other country chatter that came uppermost.

Then, in the midst of it, he would signal to his helper—the smith at another forge or perhaps one of the wheelwrights—and the said helper promptly got into position with the sledge.

For the moment was come. Old Will had got his heat. Indeed, flaming sparks were whirling up the chimney; a pinch of sand had been thrown into the fire to keep the iron from "burning"; unaccustomed eyes like mine could not look into the intolerable brightness; the iron was melting. One more push down then of the bellows lever, and I too had to hasten out, to help lift the tyre on the anvil and to help hold it there while able men "shut" one side of it. I was not quite an able man myself—too feeble of arm and too fumbling. Moreover, as employer, I could not afford to be too obviously a laughing-stock. Besides, a third man—or boy—was really often needed, with heavy tyres. I was that man—or boy. So I saw the tyre-shutting, and was of some slight use too.

The second half of the shut required another heat. Accordingly the tyre, turned over, was lifted back into the fire, the bellows were blown again, the whole process was gone over a second time. But, after the "striker," panting a little it may be, at last put down his sledge (a chinking of the hand-hammer on the anvil was the signal to him to leave off, as a lighter chinking had kept time for him all along) old Will still continued, hammering out the bruises or "squats" left by the sledge. So he worked up the edges of the new tyre until it matched the rest of the bar.

And even so he had not quite finished. Before the new tyre—welded up at last into an uninterrupted loop—could be lifted
GETTING READY

down, all springy, on to the floor, it had to be measured, as also had the wheel it was meant for.

Blacksmiths kept a special implement for this purpose—a "traveller" or "tyre-runner." The traveller was a thin circular disk of iron, six or seven inches across, which the smith would hold out, waist-high, at right angles to himself, and run round wheel and tyre in turn. Wheel first. The wheel was laid up, face-downwards, where Will could walk all round it, gravely chalking the "traveller" where it came round again to the starting point. This was probably done twice over, to make sure. Meanwhile the helpers looked on silently, too fascinated by the interest of the job to joke, though we liked joking. There were one or two questions I might have asked, had Will been less deaf. As it was I never quite knew how the circulations of the traveller were counted, if at all. Having gone all round the outer circumference of the felloes, Will then turned to the tyre, where it lay across from anvil to forge. Now, it was the inside circumference to be measured. Will accordingly, lifting his leather apron, straddled over, long-legged, to the inner side of the tyre, and solemnly ran the traveller round that also, usually twice as before. If then it showed the required circumference, all was well. About an inch and five-eighths, I think, was the "tightness" of a new tyre for a hind-wheel for a wagon. The circumference of the iron had to be that much less than the wood. The tyre that passed this examination now needed only drilling for the nail-holes, and was otherwise ready to be put on to the wheel.

PUTTING-ON

XXIV

PUTTING-ON

Hoop-tyres, I have said before, were a comparatively new invention, and had not even yet, in 1884, quite superseded strakes. By that time however they were the usual thing. Wheels were made somewhat differently for them. In the mode of putting them on improvements were still being carried out.

Already the more primitive methods of tyring had been given up. I remember seeing, as a boy, the ring of fire built up round the tyres on the ground; remember too how my father in dry weather syringed water on to the tarred weather-boards of surrounding sheds to prevent any spark from the too near fire setting light to them. But there had been changes in these matters before I began to work at the shop. Especially the open fire on the ground had been replaced by an upright brick oven—"the furnace"—a yard or two farther from the sheds, and nothing like so dangerous to them. It opened upon the yard, and had two cast-iron half-doors. Outside ran the public lane, where wayfarers might feel the brick-work of the furnace warm if wheels were being tyred.

Apart from its greater safety I am not sure that the furnace had any advantages over the old form of fire on the ground. Inconveniences there were, at any rate. Imagine a sort of oven tall enough for a man to stand upright in, and deep enough, from front to back, for him to lie at length in, yet not more than twelve or fourteen inches wide, if as much as that. Here, a pair of wagon tyres, but no more, could stand up side by side. A little room beside them was wanted for fresh firing to be thrown in now and then; a little room, for inserting the long-handled "dog" that gripped a tyre which needed turning round. For this the furnace-man in the yard jerked open from afar the top half-door—immediately a scorching heat came out—and desperately struggled with his tyre until the lower curve of it, red-hot, had been turned up out of the fire to be replaced by the upper
PUTTING-ON

curves, only black as yet; but however careless of being scorched was the furnace-man, he could not get the tyres equally hot all round, as in the old-fashioned flat fires. On the other hand, if they were too hot, heavy tyres standing were liable to sink down with their own weight into a long and unmanageable ellipse. They would have been better on the ground. Moreover, at the best only two tyres could be heated at one time. Without doubt a flat fire would have been an advantage in each of these respects. But the upright brick furnace perhaps economised heat.

The first pair of tyres might take half-an-hour or more to get hot enough for putting on. They could be set-in on the newly-lit fire just before eight o’clock breakfast. The men, coming back at half-past eight, would soon find them fit to put on. A second pair would get hot more quickly; and before long tyres might be put in and pulled out again as fast as the wheels for them could be got ready.

To be got ready to have its tyre put on, a wheel had to be screwed down on to the tyring platform—a circular iron platform, “true out o’ wind” no doubt, cemented down to the ground conveniently near to the tyre-furnace. Big enough for the biggest wheel, and about an inch and a quarter thick, this platform had a hole in the middle to admit the wheel-hub, and out of the very centre of this hole rose an iron bar, to go up through the hub, which had to be threaded on to it. A screw arrangement, stop of this central bar, enabled a workman to draw down and tighten the hub, while all the rim of the wheel lay outspread on the surrounding platform. So the wheel was fixed face-downwards for the operation, screwed tight.

Close at hand, with a supply of watering-cans around them, stood two, or perhaps three, barrels of water for cooling (“colding”) the tyre as soon as it was properly on the wheel. Rain-water-butts they were, taking the drip from the adjacent sheds. In my boyhood I had delighted to mess about with them; had invented the name “hammerhead,” for the little wriggling red larvae with which they were infested. In after years I found that, in a spell of dry weather, when there were many tyres, the water-butts had to be draped with wet sacks to prevent them from falling to pieces, unless they could be kept filled with water from the pump at the dwelling-house next the shop. A tiresome job this for apprentices or labourers, seeing that the pump was thirty yards away, downhill past some steps and round several corners. Still, water was wanted for tyres—was wanted most often in hot weather. And if the conditions of getting it were those of a mediaeval village—well, there might be worse things than working in the middle-ages, though it was not too profitable.

Now to go back to the “hotting” of the tyres in the furnace. This job my father had been wont to take on himself, but during his illness and after his death Will Hammond took it on—as far as I know without dispute. (I find it very wonderful, the way these men worked together for the good of the business, with little but their own amiable good sense to tell them what to do.) The fuel was waste wood from the saw-pits or from wagons or carts under repair. A few old dry boards from the bottom of a dung-cart, tossed in whole atop of the tyres, soon filled the furnace with flame and hurried up the work accordingly.

Looking round therefore to see that all was ready—that the sundry dogs and sledges lay at hand near the water-cans rounding the tyring platform—Will summoned helpers. Though I was not man enough to take my father’s place, I liked to be present even as “boy.” There were two other men besides Will—the chief of them the wheelwright whose wheel was to be done. He, after giving another turn, perhaps, to the screw that held the wheel down, took his place nearest the furnace doors; then, armed with tyring dogs, the three of us watched, expectant, where Will Hammond was unlatching even the lower door of the furnace.

And now the heat came out—you could hardly face it—and with the heat one tyre, red-hot or nearly so. (Sometimes both tyres came, tangled up with half-burnt and flaring wood; but that meant trouble and shouting.) With a clever movement of Will’s strong wrist, aided by a pull from the wheelwright’s dog, the tyre was thrown over (face-side down) on to the ground, where little bits of dust and wood rubbish it fell on burst out into sparks or instant flame. But no time for mischief of that sort.
PUTTING-ON

was given. Hooking our dogs over the tyre the three of us lifted it and ran with it to the wheel. As soon as a proper place could be found (for the nail-holes drilled in it had to come over the middle, not the joints, of the felloes) one section of the tyre was dropped over the rim, and the rest of it was pulled and sledge-hammered to the wheel, and at last hammered home. Often I had to hold it down with the sledge on one side, to keep it from jumping up there while being hammered down on the opposite side. For, though expanded by the heat, a tyre was even then none too large; and we had anxious, impatient, gasping moments, until it had gone over the felloes all round and been sledge-hammered near the matter into its destined place. Before that could be, the dry timber the wheel was built of was bursting into flame wherever the hot iron touched it. Smoke that half choked you, half blinded you, rose in blue and tingling clouds. There was a call for water. You seized a watering-can; poured the water hissing and bubbling on to the tyre, going round as far as you could, then hurried to the water-but for another canful. Old Will, having shovelled back into the furnace any glowing coals that had been dragged out and shut the cast-iron doors again, came hobbling up (he had a game leg) to give any help he might. The wheelwright and the other man went round “setting” the felloe-joints into proper place; another can of water was put round, and then—

Then one began to see why the wheel had been screwed down, face-downwards. Remember, it had been built with a “dish”—a hollowness in front, a convexity at back. But now the quickly tightening tyre—tightening as the water cooled it—had pulled the wheel over still more “dish,” as you could see. As the screw on the middle was loosened, the stock, set free from that pressure, rose up, an inch or more. How much, was an important matter. Will Hammond squinted across the wheel, the wheelwright squinted across it, each desirous of seeing how far his own judgment, his own endeavours, had been well applied.

But I am forgetting. Before this scrutiny the wheel had to be lifted up off the platform, and, as the tyre was still hotish as well as heavy, the lifting had to be done gingerly. The best way was for two to do it on opposite sides, balancing one another. As soon as the central screw-bar was cleared, one of the two set down his side of the wheel on to the ground; and now the other man held it up, slanting. Then he drew it upright, for the scrutiny above mentioned, and after a moment trundled it away to the shoeing-hole. This was a narrow pit, about five feet long, kept full of water and designed for this sort of purpose. But it took a fairly strong and sure man to “run” a wheel into it. Some knack at least was called for. A newly-tyred wheel might easily weigh a hundred and fifty pounds; its tyre, on the way to the shoeing-hole, was still too blistering hot to be touched; the man ran behind it, with the convex side to his right (or else he had sundry weird difficulties with it); yet just at the last he had to get to the front of it, as it ran down into the hole and set the water boiling there. Knack, as I say, was involved in doing all this easily, and afterwards in “swinging” the wheel, as it stood up in the shoeing-hole, with its back against a low post there. The said post had-holes bored through it. A stiff iron bar, thrust through the stock of the wheel and then into one of these same holes, made it possible to lift the wheel and keep it swinging round and round until the tyre was cool; and others could do this. But perhaps I had been kept at school too long to learn these knacks myself; for apprentice boys seemed to have none of the reluctance that withheld me from trying. While it was still swinging, the careful wheelwright looked all round his handiwork, hammering the felloe-joint into final place, before the tyre got any colder. When this also was done, he on one side and another on the opposite side gripped each a spoke; the wheel was lifted up out of the shoeing-hole, and now, tyre at last, was ready to be finished off.

But what was that click it gave as often as not, when it was bumped on to the ground? A series of clicks, of which this was the last, a succession of sounds like the snap of a toy pistol, had been coming from the wheel as the water was poured on it from the first. I liked to hear these noises. They were the sound of spokes going home into their mortices, dowels into their dowel-holes.
They told that the tyre was doing its work. More than ablest workman could do with sledge and wedges, this shrinking hoop of iron was pulling the wheel together all round, and would not be gainsaid. If there was no further “give” in tenon or dowel, then the terrible tyre would bend the oak spokes themselves, and the dozen three-inch spokes that had been so straight were now bowed forward as if with an incipient spinal curvature. To obviate disasters of this kind—there were several sorts of them—the wheelwright was careful to leave a slight space between his felloes, for the tyre to pull up. Therefore the new wheel was left “open-jointed.” But after the tyre had been cooled the felloe-joints were as tight together as if they had grown so. It was their getting so that largely accounted for that snapping sound.

Proof of what had happened could be seen. It has been said that the wheel was painted before being tyred. Putty (which needs paint, or it will not cling) had been pushed into all the joints and all the shakes in the wood to keep any water from getting in; but now the pressure of the tyre had squeezed most of it back again. It was especially worth noticing how the seams of putty stood up on the stock from end to end. Sunshakes, longitudinal, were in my view the mark of a good stock. My father, it was credibly told me, had been wont to say that a stock might safely be in two halves, longitudinally, if only it could be worked up; for the spokes, pressed down by the tyre, would not fail to hold it together. And now the truth of this was plain enough. Forced in towards the centre by the shrinking tyre, the spokes had jammed up the stock and closed the shakes that had gaped open for years. Truly, a longitudinal crack never mattered. It was only when a crack appeared across the meshes that a stock had to be given up. The tyre would not tighten it that way; the best place for it was the fire. But tyring would effectually close up any split running through the stock from back to front.
SHOEING: STRAKES

caught up the spare sledge to help, somebody exclaimed fiercely
"He's burning!" as the flames shot up higher; the coughing
wheelwright puffed the smoke aside to see that all was right, then (test "he," the wheel, should burn too much) pulled the
now fastened strake round into the shoeing-hole, where the
water began to pobble and boil with the sudden heat, and clouds
of white steam mixed with the blue wood smoke. The men
stood back panting for a minute's rest, and watched the heaving
turmoil in the water.

But only for a minute. Before the water was quiet, each was
stooping for another handful of nails from the bucket, spitting
on his hands for gripping the sledge better, watching where the
smith was already hooking out a second strake. And then the
same thing again—crackle of burning wood, hiss of water, rising
of steam and smoke, all to the loud clatter of sledge blows. This
for a minute, followed once more by the sudden plobbling noise
of boiling water, as strake number two was pulled round into
the shoeing-hole.

Two or three things are to be noticed now. First, observe
that the strakes cannot be put on in their final sequence, one,
two, three, four and so on. As number one is turned right round
into the water, the one that comes opposite to it—number three
or number four—is the next to go on, and not number two. I
did not hear of any formula for this rotation, but, if there was
such a thing, it would have helped the smith when stacking the
oven.

Another thing to note was that in the first strake, if in no
others, one nail—only one—was driven in firmly yet not driven
home. In all the turmoil and hurry, the wheelwright was
mindful to leave this one nail standing up an inch or so. His
reason appeared as soon as the time came for putting on the
Samson. Hooked in, at one end, round a spoke, the Samson
(with its nuts) was at the other end hooked over the projecting
nail—under the nail-head perhaps. Once fixed safely there it
was gradually screwed up—this nut and then that—until the
intervening felloe-joint could squeeze together no closer. So it
was done with every joint round the wheel; and this was the
best tightening that could be effected with strakes. Of course
hoop-tyres did the work far better and at less cost; the Samson
pulled the wheels far less dishing. This was why they had been
built more hollow at the start. Still, there was not much left for
mortal man to tighten after Samson had pulled the joints
together.

One pleasant memory of my boyhood clings to the thought
of the old strake chimney. After a shoeing, when the wood
cinders glowed almost too dazzling to look at, a rack of church-
warden pipes was brought from my grandfather's house adjoining
the yard and set down in the heart of the fire. When it was
lifted out again the pipes were almost transparent with great
heat; but cooling, they looked like new ones, chalk-white, with
the last speck of nicotine burned from the bowl, the last stain
of red sealing-wax from the mouthpiece. That was a fascinating
sight for a boy. But when, following my father, I took my
grandfather's place, churchwarden pipes were gone out of
fashion, and the strake chimney was comparatively rarely used,
even for its legitimate ends.

XXX

THE NEW IRON AGE

In the slow transition from village or provincial industry to
city or cosmopolitan industry, one sees a change comparable to
the geologic changes that are still altering the face of the earth;
a change like them unnoticed, yet like them irresistible and
cumulatively immense. Already, during the eighties and nineties
of last century, work was growing less interesting to the work-
man, although far more sure in its results. Whereas heretofore
the villager (a provincial craftsman, say) had been grappling
adventurously and as a colonist pioneer with the materials of his
own neighbourhood—the timber, the clay, the wool—other
materials to supersede the old ones were now arriving from
multitudinous wage-earners in touch with no neighbourhood at all, but in the pay of capitalists. So the face of the country was being changed bit by bit. Incidentally, occasion was arising for the "Unrest" of the present day. Village life was dying out; intelligent interest in the country-side was being lost; the class-war was disturbing erstwhile quiet communities; yet nobody saw what was happening. What we saw was some apparently trivial thing, such as the incoming of tin pails instead of wooden buckets. Iron girders had hardly yet begun to outgrow beams from buildings; corrugated iron sheets were but just beginning to take the place of tiles or thatch. If an outhouse was boarded up with planed deal match-boarding from Norway instead of with "feather-edged" weather-boarding cut out locally by sawyers one knew, who was to imagine what an upheaval was implied in this sort of thing, accumulating for generations all over Europe? Seen in detail the changes seemed so trumpery and, in most cases, such real improvements. That they were upsetting old forms of skill—producing a population of wage-slaves in place of a nation of self-supporting workmen—occurred to nobody.

Although in my old shop the flood of changes was not yet—the flood which at last has but overwhelmed the ancient handicraft—various smaller changes had begun to trickle in, as early as 1884 and the three or four following years. I think I bought no new paint-pots from the local pottery. The old ones, having been "burnt out" often enough (you started fire in a paint-pot with a wisp of shavings from the wood shop, after which the oil dry paint burnt by itself—and smelt to Heaven—leaving the glazed earthenware tolerably clean) the old paint-pots, not renewed, were replaced by paint tins, improvised from "empties" that had come from the manufacturer full of some special red or green. You couldn't burn out these tins so well—they fell to pieces if the solder melted—but why trouble? More and more came in their place—products perhaps of man's work, but more likely of machine work, made for nothing more dignified than the dust-hole.

And not the smaller quantities of paints alone arrived in

"tins," "Drums" of white lead, of "Venetian," of "Driers" came, instead of the barrels in which these materials were formerly packed. The wood-worker who made barrels was going, if the tin-worker was coming. From that industry, at any rate, old skill was "getting the push."

And the wood-worker was going, or at any rate his ancient provincial skill was falling obsolete, not only as to the utensils and materials I bought for my shop but likewise as to the things made there. Ploughs (I had heard of my grandfather standing in Farnham market with a sample plough every week) almost ceased coming for repairs in 1884. A few new plough-beams were put in from my stock of timber; I was responsible (as employer) for a few new curved "stilts" or handles. For a year or two I still stocked ploughshares, turnfurrows and other castings from the Reading Ironworks for the wooden ploughs my father had been wont to supply. A carrier named David Budden, I remember—a man with anxious-looking clean-shaven face and black shiny gaiters—used to bring the castings by road, the ploughshares being in half-dozens tied together with string or with wire. These I found it worth while to keep in stock for a time. But after a few years the Reading Ironworks closed down; their trade, so far as I knew, was done with. Wooden ploughs had gone out of use—had been driven out of the market by cast-iron ploughs, painted a pale bright blue.

The history of harrows and of "drags" (similar to harrows but heavier implements) is much the same. In fact, iron harrows came into vogue a year or two earlier than iron ploughs. I learnt but little about the wooden kind of harrows, though I fancy two or three pairs were made in my time. I knew that their larger and curved timbers were called "larrows," these being mortised on to thin slats or keys, and I knew how harrows were hooked by the corner, two together, to a draught bar called a whippance. Oak was the stuff harrows were made of—heart of oak; and besides that the wrought-iron attachments for them—the "copses," the loops, put on hot—were ingenious, the "tines" themselves, I knew, sometimes needed "lining" with fresh steel, being worn down by much dragging through the
come to pass just before my time, though the last remains of the older method gave me an inkling of what it had been. And here again I think the change probably resulted in a better product, though it gave a quietus to one more form of skill and favoured machinery at man’s expense. The workmen in my shop, to be sure, always maintained that the old five-inch wooden axles “ran” better—more easily and smoothly—than the new two-and-a-half-inch iron arms; and I always agreed. But really I have no knowledge that it was so; and I do know that to provide a good standard iron arm and box was easier than to make and fit an ancient wooden axle; and, probably, being so much less cumbersome, the iron allowed of some saving in weight and therefore in horse-flesh.

It would be difficult in these days to find even the timber, or the experience that could season the timber, for a wooden axle for a waggon or dung-cart, to say nothing of the huge wheel-stocks required for it. A quartered butt of beech, not “biscuity” but hard as bone, near eight feet long too by six inches square—this is what must have been used for many thousands of axles, less than half a century ago. How it was shaped up with proper foreway and under-set for dished wheels, or how iron “clouts” (with “clout-nails”) were carefully fitted into it to take the wear—is all but gone from my memory, as indeed it was hardly worth storing there, when iron arms from Birmingham were already making the old wood-work obsolete. But there are, none the less, a number of things I should like to know about the history of wooden axles.

I should like to know, for instance, when they too were innovations, and what preceded them; or rather, from what origins, and by what stages of improvement, the art of making wooden axles had been evolved and had become a widespread tradition.

For, when one reads of the folk-wandering of the prehistoric tribes, and learns how some of the tribes migrated, say from

Note G, p. 208.

1 I saw one, placed on the top of a stile, in the Isle of Wight; one in the yard of a village smithy near Guildford. Several dung-carts in a farm-yard near Rye had wooden axles. They are still in use near Worthing.

soil. But, although I understood that there was a mystery about placing the tines and letting them into the harrows, the opportunity for making it out never came to me. Cast-iron harrows—bright blue like the iron ploughs—shifted all that sort of work from shops like mine to foundries. I do not know whether such interest went with the making of them as Cook and Hammond had enjoyed in making the wooden ones.

Wooden hames (or haims)—well, there had once been a demand for them in my shop. Cook knew how to make them; Hammond could go through all the detail involved in ironing them up. Moreover, we had a “pattern” of their shape—a thin lath of delicate curves, brown with age; proof enough, in itself, that of old the making of them had been a common task for skilful wheelwrights. More—I remember not only marking-out an ash butt to be sawed into future hame-planks, I even lined-out, by the pattern, and perhaps I helped saw, the stuff for a new pair of hames. The very toughest ash butt was good enough for them, and might give approximately the right turn—if the tree had been cut off low enough to contain an inch or two of the curve upwards from the roots. Indeed, nothing less would suffice, so delicate and slender were the curving hames. Such loving work was put into the pair I have mentioned—they had so much shaving, forging, filing—that the cost of them, to me, exceeded the traditional price which was all I could charge the farmer they were made for. I resented, not openly, his grumbling at the cost, not knowing, then, that that grumbling too was traditional. But of course I could not have competed against the midland factories, with their steel or brass hames. The work was easily standardised; localised skill in it was traditional. But of course I could not have competed against the midland factories, with their steel or brass hames. The work was easily standardised; localised skill in it was unnecessary, and, so far as I can see, the ready-made article was really better than I could produce. None the less, it was well for workmen like Cook and Hammond that they were not dependent for a living on the demand for hames; for the demand passed them wholly by and addressed itself to machinery and machine-workers.

Yet another branch of the wood-workers’ living was captured away from them, when wooden axles were driven out by case-hardened iron arms. This too, in my little shop, had already
western Asia all across Europe—whole nations at a time—in waggons, then it is a puzzle what those waggons could have been like. What wheels could they have had; and, still more, what axles? Were they wooden axles, at all like that one that was put on to Mr Allden’s dung-cart—fitted to the strake-tyred wheels—in my old shop in 1884? If it is hard to think that the barbarian axe-trees were ‘at all like that, I find it even harder to conceive in what essentials they can have been different and the waggons yet hold together through far travels and the wheels run round. Some construction equally durable they must have had and yet—

Everything about a wooden axle and its wheels seemed to imply a long-settled population. How could nomadic tribes have accumulated, I will not say the experience, but even the material required? It was not any timber that would serve or even any beech; but to get the right stuff involved throwing and “opening” a tree at the right season, and on the right soil too. Did the wandering barbarians cart a sawpit along with them? or a stock of seasoning timber, or a stock of it seasoned? Did they take benches, wheel-pits, the requisite axes and chisels and hand-saws? Or, if not, how did the wandering tribes come trailing over Europe? or how many thousand years did they spend upon the migration, building villages, gathering traditions of handicraft, seeming to settle down, and then off again?

Such things of course I shall never know. Yet I cannot help suspecting that some of that sort of life was still going on as late as when Mr Allden’s cart came to my shop for a new wooden axle in 1884; and that about that time the ancient iron age was waking up to new encroachments destined to be more momentous to mankind even than its prehistoric arrival had been.

In the general run, through hundreds of details of the wheelwright’s craft, iron and wood were not so much competitive as mutually helpful. Either seemed content merely to eke out the other’s deficiencies. The hardness of the iron for small things and the comparative lightness of the wood for large things, made a blend that had stood for ages. There can be no doubt that wood-work came first. It had seen stone followed by bronze, and that by iron; and as yet iron still held rather a subordinate place. Thus it shod the wheels, provided hard axles, furnished many a “pin,” or “cose,” or “link,” or “eye,” yet was hardly in any case indispensable. The latch1 of the front door in my shop was a wooden one. In some ways iron imitated wood-work, notably in aiming, everywhere, at the utmost lightness consistent with strength. Wherever a three-quarter rod might do, if reduced to half-an-inch at the other end, the blacksmith would “draw it down” with patient hammering, or perhaps would “shut” a thin piece on to a thicker piece, welding the two so that you could not see where they joined.

This shutting of iron (there were other uses for the word1) was a process worth watching. The two pieces to be “shut” were first of all thickened or “upset” at the ends to be joined. The way to do this was to heat the end in the fire and then hammer it back or stub it against the anvil until the iron was swollen just there. Each swollen tip was then “scarfed down,” or hammered thin and fitted or stuck into the other; and then, with further heatings, the two pieces were welded into one another. Under this treatment the reason for the initial

1 Note H, p. 208.

2 Besides such familiar uses as shutting a door, shutting-up shop, etc., carters talked of shutting-in a horse between the shafts, or shutting it out. In west Surrey we said shut instead of shut, talking so of shut-links, shutlicks and so on.
To this sort of accompaniment the blacksmiths' hammers were chinking all day. Now and then the men were interrupted for tying or for shoeing; now and then harrow-tines, or a pickaxe, or a garden-fork, needed "laying" or lining with fresh steel, or the tines even needed replacing altogether. Excepting for light through the open half-door, or from the window over the bench and vice, the smithy was kept pretty dark. Will Hammond preferred it so. If the skylight did admit a splash of sunshine, as it sometimes tried to do on summer noons, he was prompt to veil it with an old sack he kept nailed for that purpose. The sunshine, he said, put his fire out; and very likely it did affect the look of the "heat," so all-important to a blacksmith.

However that may have been, the old smithy preserved a decent darkness, showing up strongly the roaring fires, the glow of sparkling iron. And in this gloom the smiths passed their days of interesting variety, making or mending the unnumbered irons for waggons or carts. Of some of these they kept a small stock made up, such as "stays and copes" for bodies, "rings and guide-guns" for barrow wheels, eyes for tailboards, and shutlock-hooks to hang the tailboards on. "Fore-irons" for shafts were in constant demand, and the smiths liked always to have two or three sets by them. In a spare half-hour they would start making them—"long-staples," and tug-hooks and quilers (probably coilers) and drayels and "ring-and-starts"—to say nothing of hookcapping-irons and keying-irons and gailing plates and prop-stick loops and ferules and key-stick cranks. It was truly a world of strange words for a novice in the old smithy; afterwards it began to be a question rather, in what far-off reign had English rustics first used those terms?—or was it, perhaps, before reigns were thought of?

One thing was plain enough. However ancient the traditions of the smithy might be they were still vigorously alive. Not once or twice only, but over and over again, some careful carter asked for this or that slight modification, to suit a special horse, a special bit of hilly road, or what not. Whenever a new drug-bat (skid-pan) was wanted, or a new roller-chain, one of the smiths not only put on the bat or shut the link to connect the chain, but he had to go out to the waiting waggons, to test the lengths of chain, and make sure that the new work was really what was needed.

**XXXII**

**THE IRON AGE MOVING ON**

But quiet though it was—looking almost stagnant if seen daily—an encroachment of iron-work upon wood-work was continually going on, and probably had been going on for a very long time. In three directions, at any rate, I beheld it. During say the sixteen years between 1884 and 1900 iron ousted wood in my shop in regard to bumpers, rave-ends and strouters.

Bumpers were blocks of wood fastened to the back of a tip-cart so as to touch the ground and keep the rest of the body raised a little off it when the cart was tipped. In dung-carts the same effect had been achieved by the main timbers themselves, the tail-ends of which, called "pummels," projected some ten or twelve inches behind the rest of the body and took the shock (the "bump") when the cart was tipped for the load of swedes, say, to be shot out on to the barn floor. But the construction of ordinary carts for general purposes—for sand or gravel, for coal, havis, clover, or hundreds of other things—did not result in "pummels." Instead of pummels, and not part of the main framing like them but an addition, a sort of after-thought, bumpers were notched and bolted, one each side, to the main timbers. About three inches square, they projected some eight or ten inches beyond the cart, and were very effective in keeping its more delicate workmanship from smashing down on to the ground every time the cart tipped. Bumpers were shod with a stout plate of iron bent round them.

So carts were built, I think, during the eighties. But by the end of the century the wooden bumper was out of date. Loops of iron (usually square iron), called "tipping-irons," were now
the fashion. As a matter of fact they were not nearly so good a protection for the cart as bumpers had been; but then, carts were anyhow beginning to shake to pieces, or to wear out more quickly, in the more hustling times and on the harder roads.

Bumpers instead of tipping-irons would not have saved them. And the latter were less costly to make, and also looked lighter. Any contractor who cared more about public esteem than about truly efficient carting preferred the lighter-looking iron-work to the rather clumsy-looking wood. And in fact the tipping-iron, with its rather beautiful curves, answered quite well.

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In rave-ends a truly valuable improvement was made when the once slender end was cut off square and sheathed in thin iron hooping.

It was railway work that almost necessitated this change. Of old the ends of cart-raves had but required shaving-up lightly with a draw-shave, just for the sake of reducing the weight and finishing neatly. But, by and by, carts began to wait on railways, with loads to be transferred to railway trucks; and then trouble began. Backing his cart close up to the truck the carter found that his delicate raves snapped like matches, or at least battered in and split. The tough ash could not stand being backed against the truck by a backing horse. What was the remedy? It was simplicity itself. The raves had to be cut off at their full thickness and wrapped in iron. I do not think waggon-raves ever received this treatment, although waggons were framed up in just the same way as "raved-carts," as we called them. Wagons were not so often used for railway-station work, or so often left to the tender mercies of inexperienced horse-drivers.

The use of iron in place of wood for strouters was rather a bad step backwards, although it became almost universal. Truly it was a saving of artisan's time, and therefore of money, to the buyer of the cart or waggon, and it gave him a somewhat lighter looking vehicle. The public, seeing it, might praise the owner of this smart up-to-date tackle.

But, in point of fact, wagons and carts lost in strength considerably, and gained little if anything in lightness, by the substitution of one material for the other. The iron strouter was none too efficient for its purpose, and in two respects was an actual source of weakness—bad weakness too.

What was the purpose of strouters? Their use was to act as a sort of buttresses to the body. Raved-cart, dung-cart, farm-waggon, whichever it might be, was open at the top. It had been built up from the bottom timbers in more or less delicate skeleton frame-work for holding loads. At the front-end, near the horse, this frame-work was held together by the "head" or heads, across from one side to the other. But there was nothing of this sort at the other end, the "tail." There, the "tailboard" was made to let down or to take right away, and there was great need of some contrivance to keep the side-frames from "spreading." They were as unstable as two sides of a packing-case would be if one of its ends were knocked out.

Such a box was the empty cart. The end was left out. The load, and the act of loading, emphasised the consequent
XXXIII

WILL HAMMOND

The first and last thing to be noticed about “Old Will” the blacksmith was his deafness. If it had been absolute we should have approached him habitually in some different way and forgotten his affliction, but as he could, sometimes, just hear, so we always treated him as if he were normal and we were at once and all the time “up against” his trouble. He was only not absolutely deaf. There were some things he did hear, faintly; so that it was always worth while to try if he could hear what was said to him, or rather, shouted at him. His fellow-workmen alleged that, at his club “feast” (Will was a Forester) the place to find him was near the big drum, because there he was sure of enjoying the pleasure of hearing something for once. And, it is true, the experience of hearing did rejoice him. I remember finding him in the street one dinner-time chuckling and all smiles, because a cart was passing with an ungreased wheel. Will had actually heard its piercing shriek. And still, after many years, that glowing summer afternoon comes back to my memory because it was enriched by his smile.

His terrible deprivation, of many years standing, was something like a solitary confinement in its cruel effects on him. Most tender-hearted of men, he had not for very long heard an affectionate voice—for I do not think affection travels on a screaming shout, and it was in a screaming shout that even his wife and daughters had to speak to him. Of course, he by no means kept pace with the affairs of the day, nor could any new ideas about his work be conveyed to him. What he had learnt in his village boyhood he knew, and there it stopped.

For instance, passing a “male fern” in my garden, he turned to me solemnly to ask “Snake vain?” using the old Surrey country talk, and so throughout. He rarely got a new idea. In his later years—during the Boer War—the nearest he could get

to the name of Kruger was "Krozer—or some such name." Though he lived for years in a Farnham alley, he failed to pick up any of the manner even of a little country town. He was all rustic. In hot weather he went slouching through the streets (he had a "wound" in his leg) like a harvester, coat over shoulder, shirt unbuttoned, short black pipe in mouth. At his work, with his leather "apern," he was still a village man. I heard weird country superstitions from him about horse-shoeing. A faulty nail, which had had to be withdrawn from a hoof, needed to be kept bright (in his pocket was the best place), lest, going rusty, it should magically injure the horse's hoof. What he didn't know about strakes and strake-nails was not worth knowing; or about harrow-tines, or ironing-up wooden hames, or clouts for wooden axles—all of them rustic things.

Certainly he was of the remote country—buried under old-world notions—a follower of the crafts of Anglo-Saxon colonists before the Conquest. Frensham ("Fruns'm") was his birth-place, hard by Churt ("Cheert," as he called it) in the Surrey wilds, below Hindhead. His father had been a husbandman in that village, had fallen down dead while crossing the meadows there—and that, Will thought, foretold what his own ending would be. In the same cottage where he had been born his mother kept the home together for his brother—now another husbandman, as deaf as Will himself. Several times I saw the mother—a black-haired and very handsome woman even at that age; and several times I heard of the grape-vine on the cottage walls. But the only wine I ever knew Will produce was "elder-wine," though I think he sometimes spoke of "pa'snip-wine."

He probably helped on the land until he was sixteen years old. At that age he was apprenticed in my grandfather's Frensham shop—managed in those days by my father's brother Richard. For him Will seems to have conceived a strong liking, as I realised long afterwards. On his death-bed, wandering in his wits, the deaf old man spoke to me under the impression that I was my own uncle, spoke friendly and happily, as if at some long-ago village festival. To my own father he looked up with something
any meaning in the happy chirp of his voice when we wished each other "A Merry Christmas"—he was feeling very blissful. Charles Dickens would have beheld him with great affection and esteem.

XXXIV
"JOBBING"

Those who had been duly apprenticed were wont to say, in my shop, that a man learnt more as an "Improver," in the first twelve months after his apprenticeship was over, than in all the six or seven years of "serving his time." Although there may have been some swank about this, I think there was some truth in it. It was not only that an improver was liable to be discharged, and had to try at last to work well, if he had never tried before. This was what the skilled men chiefly meant, and it was true. A youth, turning from apprentice to improver, must now prove his worth or "get the sack." But more than this: experienced judgment was called for in many jobs that an apprentice could hardly be trusted to do, and this the elder men understood. The case was probably the same in other trades. A watch-maker assured me that, while it was comparatively easy for a youth at a technical school to learn how to make a new watch, the test of a true workman was at the repairing bench. Certainly this applied to wheelwrights. A machine could turn out a wheel—of sorts—but to mend one required, in many cases, long experience. Because this was so, I learnt to dislike employing either an old pensioner from the army or a young boy from a technical class. The soldier (besides being usually out of the habit of steady work) could not bring any experience of his own to bear and was afraid to move without orders. The army had killed his initiative. The boy, on the other hand, with no experience at all, was wont to think he already knew enough. He would not be told, and he was too vain to learn the lessons constantly coming from repairs.
From repairs, in fact, came the teaching which kept the wheelwright's art strongly alive. A lad might learn from older workmen all about the tradition—all that antiquity had to teach—but at repairs he found out what was needful for the current day; what this road required, and that hill; what would satisfy Farmer So-and-So's temper, or suit his pocket; what the farmer's carter favoured or his team wanted. While "new-work" was largely controlled by proven theories and by well-tried fashions, on the other hand repairs called for ingenuity, adaptiveness, readiness to make shift. It wasn't quite enough to know how to do this or that; you needed also to know something about why, and to be ready to think of alternative dodges for improvising a temporary effect, if for any reason the time-honoured methods known to an apprentice could not be adopted.

You had to be prepared to cope with queer and inconvenient accidents—if a horse ran away and snapped a shaft, or turned a cart over, or if a tyre came off a wheel. Sometimes a message would come that a wagon-axle had broken asunder out at Where-is-it, a mile away, or Farmer What's-his-Name would send asking for a man because a dung-cart wheel was jammed and would not go round. In such cases, and their variety was legion, an apprentice would have been helpless. Nor would it do to send an army pensioner too timid to do the smallest detail without instructions. What was wanted was an experienced man, sure of himself and well versed in the use of odd apparatus and handy tackle for emergencies.

Such a man going to "pick-up" a break-down—a wagon on the road, say, with a wheel run off—would know what to take with him—a screw-jack, a "chopping-block" or two, several levers, an old wheel, perhaps a handful of oak wedges, one or two sledge-hammers—for it might well be that all these things would be wanted. And, reaching the break-down, he would know how to lever it to the road-side out of the way of other traffic, and how to scotch-up one side of it safely while he worked on the other side. With none of the conveniences of the shop at hand, he could improvise a bench, a vice. The road was his "wheel-block." A stone might serve a useful turn.

Perhaps the trouble was a cart brought to the shop with a wheel that wanted greasing, that squeaked hideously and seemed likely to catch fire with friction, yet refused to be taken off the arm. "Coomed-up" the wheelwright would say, possibly instead of gummed-up, but certainly meaning that the old grease, which should have been periodically cleaned away (any old sack would have served), had hardened into solid obstruction round the lynch-pin, or the collar, or the washers. Then the skilled man knew perfectly well how to turn the cart over, how to get his sledge-hammer to work without smashing the wheel, and, when he had got the wheel off, how to burn the old grease away from the axle-arm without spoiling the "temper" of the case-hardened iron.

Sometimes, in an ignorant attempt to correct "too much foreway," a carter had got the stock of a wheel so saturated with grease that the oak wedges no longer held and the cast-iron box, grown loose, had worn away too large a hole through the centre of the wheel. It fell to the wheelwright, then, first to fill up the superfluous space round the box; next, to drive in new wedges that they would hold in spite of the grease; and, lastly, to find out what had been the origin of the mischief and to put it right. The employer had many other things to see to and could not always give personal attention to every one of these details. An experienced and self-reliant man was wanted.

While problems like these just instanced were common enough, other repairs, arising out of normal wear and tear, were part of the daily routine of the shop. This or that piece of iron-work, or of wood-work, had fairly worn out, or had been damaged and needed replacing. This it was especially that kept the ancient traditions still young and vigorous. For here the workman—whose apprenticeship had but brought him into contact with a skilled senior—came into contact with the forces of weather, of sun and rain and frost, of road-grit and horse-strength—the frictions and strains and stresses which are the inexorable law-givers to all crafts, in all time.

Day after day the work from this source—"jobbing-work"—came to the shop. Often the yard was crowded with carts and wagons brought in for some slight attention; though, to
Be sure, in bad winter weather whole days would go by when nothing—not so much as a wheelbarrow—came, and I began to wonder what to set the men at. In the first year or two this didn’t matter so much. There were spokes to be dressed, felloes “turned out” by the sawyers to be shaped; the woodmen had enough to do. In after years the purchase of ready-shaped timber made winter a difficult season to get through, as no “short time” had ever been worked in my shop. The farmers never helped me out, in those circumstances. Truly exasperating it was. Sometimes I knew of a certain cart wanting a new wheel, a certain waggon with the boards worn out, a pair of shafts that would need a new “bolt” (cross-bar) before they could be used next spring. I knew where these things stood in their sheds, getting covered with dust, and I would suggest to their owners to let me have them now, in a slack time. Yet I don’t remember ever getting any work that way.

But, by and by, when spring brought a change of weather and the shop was busy and the yard full, when the farmer wanted his wheel, or his waggon, or his decrepit shafts urgently by next day, then would come peremptory messages, unreasonable demands, to get the job done forthwith or it would be taken away to some other shop. Yet not seldom it happened that, after a job had actually been taken out of its proper turn and the owner notified, it would be left in the yard in the way for a week or two. In summer weather, though, there was not much time for grieving about such things. Every hour brought its fresh job, or saw some old one fetched away. Now and then some member of the staff, acting for me while I was myself busy, would make an inconvenient promise. Then he became unduly urgent about the job he had taken in, wanting to attend to it first. Or he had some favourite customer, or another had tipped him, or he had a fancy for doing this tailboard, that splinter-bar, rather than the wheel I wanted him to repair next. These, however, were but problems of management. They did not affect the problems of wear and tear, which taught more than the apprentice could be shown.

1 See also p. 43 and Note L, p. 210.

These were so various—each illustrating some detail in the craft—it is hard to choose amongst them. Much might be told about repairs to shafts. Hardly a day passed without some of this. For instance, when a horse was being “shut-in” (backwards, of course) it was only too liable to set a heavy hind hoof on the fore end of a shaft and cause it to “spring.” The only thing to do then was to splice the shaft. As this involved taking out the iron-work the opportunity was seized of mending it in the blacksmith’s fire before it was put back. Did the hooks want lining? Would the ridge-tie serve another turn, or were its links getting so thin as to make a new ridge-tie necessary? Nothing but experience could instruct one on these matters. It was useful experience again—it taught a lot about shafts—to watch Will Hammond with his tongs, winding and nailing a red-hot “wroopin-cleat” as he called it—a narrow band of hooping—round each end of a splice. He knew, if you didn’t, just where the strength was wanted.

Shafts had to be spliced, sometimes, not because of any break but because, lasting too long, they had actually worn sharp at the points from being dropped down on to the ground so often. It was enough to make you shudder to see a horse shut-in to shafts like that. He had but to stumble sideways and the ash would pierce his shoulder like a sharpened stake. But, though humanity counselled splicing, there were several details to consider. Perhaps it would suffice just to saw off the dangerous end and round-up the stump a little? In no case must the shaft be made so long or so short as to wear into the horse-collar; a consideration that showed why new shafts and shaft-planks were sawed out to a certain length. At the same time it became clear why just that curve was chosen for them. The shafts, having approached the horse’s shoulders and collar conveniently close, were better turned away again slightly, just at the very end.

Whenever a farm-waggon was brought in for general overhaul and painting quite a number of fittings unattached to the main structure needed looking to. To say nothing of the extra pair of shafts, with “false splinter-bar” for hanging double shafts (for two horses side by side), a well appointed waggon...
would have two detachable "ladders"—for extending its fifteen feet or so to, say, twenty feet. This split hay-making, or corn or straw-carting; and often the ladders proved to need a new "key" or cross-piece. A split ash pole would do; it didn't matter about being very straight, so long as it could be slender and light, yet tough. The wagon also had a drug-bat and chain (for skidding the wheel when going down hill) and a roller-scotch (we never called it anything but plain roller) for up hill. Scotch and skid were alike fitted for the near hind-wheel; that being the wheel handiest for the waggoner, walking that side of his horses.

The repairs to "rollers" are singularly pleasant to remember, so suggestive are they of summer and country roads. The roller was a little cylinder of elm—about eight inches long by three inches in diameter—hanging at the back of a wagon so as to be let down as a scotch for the hind-wheel, going up hill. Whenever the horses wanted to stop for a rest, there was the roller ready to keep the load from running backwards, for it followed the hind-wheel at not more than three or four inches away. Carts (two-wheeled vehicles) never used this apparatus. Cart-drivers would pick up a stone by the road-side to serve the same purpose; or sometimes (not often) a "dog-stick" was supplied to them, to hook on to the cart axle-bed when going up hill, and drag along, prong-like, behind. When the horse stopped the dog-stick immediately dug back into the road-surface—which must have been bad for the road if helpful to the horse.

But the wagon, or any heavy four-wheel, had a roller, swinging down from the hind axle, out of the way when not in use. At the bottom of the hill the roller was easily unhooked on one side and brought round (to be hooked then, on a swivel, to the front of the stock) so as to trundle along on the ground, close behind the near-wheel. It trundled on an iron spindle, this spindle being attached to two light "roller-cheeks," and each of them to a slender chain about three feet long each side. The elm core was itself cased in three iron bonds.

And you saw why, when it came to repairs. You felt as if you were on a dusty road then. For road-dust lay in the wheel-track which the roller so closely followed; hot summer road-dust rose in clouds from the horse-hoofs and smothered the roller. No doubt there was sometimes mud, yet that was not what you thought of when you saw the roller, or at any rate what I remember now. It must have been dust—the dry soft powder of hot weather—that had polished the bonds bright and thin, and worn away the elm between them and made the spindle shine.

And then, as you looked at the chain and the cheeks, with the holes worn so big and the iron so thin (surely the blacksmith would have to "cut and shut" those cheeks?), in fancy you were aware of the going of the waggon, the step of the horses along the lonely and interminable country roads. For those links, those check-ends worn so thin, told of the dangling roller, swing-swing, mile after mile. Of course my fancy is foolish. Often the roller must have swung so on a starlight night or a rainy winter morning; but then, I never saw it so. What I did sometimes see was a farm-waggon trailing along in the dust with summer light glinting on the dry roller-irons, as the roller (with a bucket beside it) swayed and swung on the hind axlebed.
riser and was hooked on to it. But when the skyward-pointing shafts were pulled down again for hauling, they brought the riser upright and the tree rose with it, clear of the ground. Two or three strong men could generally do this. You see, the length of the shafts gave a good leverage.

As even six-foot wheels would not otherwise have taken more than a three-foot tree in between them, more room was obtained by curving up the axle or exbed. A tree too big even for that could hardly have been got home to a saw-pit at all; at any rate it would have been more profitable to dig a saw-pit under it and cut it up where it lay. This is what my father once did with an elm at Tilford. No neb would have spanned it; no timber-carriage could have got it to Farnham. It was for smaller trees than this that the neb was useful.

As it was chiefly on large estates that neb's were wanted, the demand for them was not great. Timber-carriages were a little more plentiful. Besides the farmer who carted my little lots for me, several builders kept timber-carriages of their own, as did also one or two timber-merchants. Repairs fairly often came my way therefore, but when a new pole was wanted the owner would often furnish the material himself—in pine, perhaps—as I had no ash or oak big enough, long enough, straight enough; and it was by no means worth my while to prepare stock for so infrequent a need.

Excepting for its much heavier dimensions, a timber-carriage was not very different from a wagon with the body taken off. Two or three small ones were built at the shop in my time, but I never had much to do with a big one, with its massive wheels. The pillars (pillows?) on which the load rested were lined, on top, with stout iron bars, notched along to give a purchase for levers when it came to pushing the trees off.

Amongst other implements out of the common but occasionally made in my shop, wheelbarrows especially designed for a washing factory may be just mentioned. They were built wholly of oak, to be more resistant of wet; and no paint was allowed on them. Again, a firm of horse-slaughterers now and then wanted a new "knacker's cart." There was nothing special about building these carts save to imitate an older one, by whom designed I do not know. Perhaps the oldest thing about a knacker's cart was the smell of it, which however was supplied from the slaughtering factory. I don't think it was this piece of antiquity that (in after years) caused King Edward's (or perhaps it was King George's) swift motor-car to go at a walking pace past my old shop. An English knacker's cart had halted in the street and I was measuring for new wheels for it when the King of England passed, on some incognito military errand from Aldershot. Did he ever smell such a smell before, I wonder? Did he know that feature of his country?

Now and then we had to mend a water-barrel—a barrel on cart wheels—for some sheepfold probably. Not that we knew anything of barrels themselves; but if an existing barrel needed a new hopper, or new hoops for fastening it to the framework, or new boards for a man to stand on at the sides—if anything like this was wanted, to whom should the barrel be sent save the local wheelwright? He had the elm board for the hopper, the iron for the hoops; he employed a wood-worker, a smith; he could look to the wheels, or splice the shafts; certainly the wheelwright was the man. So, water-barrels came to me for attention. Though I forget the details, I often remember—as one of my first and pleasantest jobs at the shop—pottering about a water-barrel along with a skilled man (my friend now), fitting a new hopper, I think. It is a pleasant memory—the colour of the boards, the warm August afternoon, the sound of hammering—my own hammering—thundering along the sleepy street; the intercourse, still at that time so strange to me, with the good-tempered confidence of a skilled workman.

Just because we, in my father's shop, were skilful in wood and iron, men cunning at other crafts looked to us for the sort of help we specialised in. It was not solely for wheels and farm-work that the local wheelwright's experience was called in. A baker came to me to make him a new peel; for who else was so likely to have the long tough ash he wanted, or to be able to get it cut out and planed and shaved? Similarly, I was called upon to supply a potato-mill. The elm boards, and the beech for the
It has been already explained how, having no other guidance, I priced the work to my customers by my father's and my grandfather's charges, making schedules of figures from an old ledger. This plan was only not quite disastrous because, as also has been explained, there was in fact a local traditional price for new work and new parts, which nobody dared to exceed. This much was painfully proved to me long afterwards. A certain standard cart, I ascertained, was being sold throughout the neighbourhood at less than cost price. Accordingly I tried to get sundry rivals to join me in raising the price. One of these however made the project known to a good customer of mine and succeeded in getting that customer's work away from me. This was one of the many occasions when I should have welcomed pressure from a strong Trade Union, to compel other employers to make the changes I could not introduce alone.

My father had probably known for years how unprofitable some of the trade was. New work, he used to say, did not pay. Even in his time, and under his able management, it was only worth doing at all for the sake of keeping the staff together and getting the "jobbing"—the repairs; for, as there could be no standard in them, it was still possible to make a profit at jobbing. On the subject of profits other tradesmen in the district were as ignorant and simple as myself. Although Farnham fancied itself a little town, its business was being conducted in the spirit of the village—almost indeed of the mediaeval manor. Men worked to oblige one another. Aldershot was almost as bad; Alton was if possible worse; and the most conservative village in the whole neighbourhood set the rate to which my own trade lived down. I doubt if there was a tradesman in the district—I am sure there was no wheelwright—who really knew what his output cost, or what his profits were, or if he was making money or losing it on any particular job. In later years, after the habit
of giving estimates had become common (as it was unknown in 1884), I several times lost work to rivals who, I found out, were working for less than the mere iron and timber were to cost them. They never knew. Nor did they know if on to-morrow's estimate they were to make a fabulous profit. Well on into the present century these matters, in my trade, were settled by guess-work, not by calculation. We knew nothing, thought nothing, of how much we ought to have. But it was very needful to know how much our customer would pay.

This strange way of conducting business had possibly worked out well enough, say in Queen Anne's time when the shop was founded. In the course of generations errors would get corrected and a reasonable charge standardised. Neighbours, with little or no competition, would find out the fair prices of things and not dream of departing from them. Even in my grandfather's day the traditional prices would often hold good. Then, there were no "overhead" expenses—rates, fire-insurance, railway carriage, office charges, and so on—to compare with those of the present century. The wages left the employer a good margin. Thus, my grandfather paid but 17s. a week where my father paid 24s. Materials cost less.

But by the time I dropped into the business many changes had begun. Some of the old work was growing obsolete, unexampled work was coming into vogue all round. Not only was it that "The Iron Age" (as already pointed out) was on the move again, after years of quiescence. Better roads, and imported foodstuffs too, broke up the old farm-life on which my shop had waited. Instead of waggons, vans to run twice as fast were wanted, and their springs and brakes and lighter wheels revolutionised the industry my men had taught me. At the same time the break-down of village industries was introducing changes which were reflected in my shop in the shape of butchers' carts and bread-carts—unknown of old—and in brewers' drays and in millers' vans, not to mention vehicles for bricks and other building materials.

While novelties were pouring in upon the trade from one side, on the other side an unexampled competition began to be felt, keeping the prices still low. Things were not as in the pre-railway days. Now, discontented customers would buy "steam wheels" from London. Lighter wheels than any that could be made in my shop—wheels imported ready-made from America—had to be kept in stock along with the ancient sort of nave and felloes. But the prices were effectually kept down also by competition of another sort, or rather of a very ancient sort. Dorset villages, Wiltshire villages, entered into the rivalry. Thanks to their lower wages and rents, and their far less costly timber, places one had never heard of were able to supply local farmers at so cheap a rate that it was worth the farmers' while to ignore, or to sacrifice, the advantage of vehicles made locally with a view to local conditions. The circle of my competitors widened out by hundreds of miles.

In all these circumstances it is not wonderful that the price of wheelwright's work by no means kept pace with the cost of it. To tell the truth, the figures in my shop in 1884 (as extracted by myself from the old books) were not much in excess of those which Arthur Young found current in the southern counties in 1767. For a waggon the price had risen from about £21 then, to £29 or £30 in my father's time; but carts, which at the later date were but £12 or less, had averaged as much as £10 even a century earlier.

Conceivably a man in so small a way of business as to do much of his work himself—and this must have been the case with many a village wheelwright—could make both ends meet even at these prices, even in 1884; and this the more if he got "jobbing" work to keep him going and to confuse his calculations. I knew one man who threw up a situation he had held for years in a rival's shop—probably under the impression that it was a profitable thing to be an employer even without capital; and began building new carts for a pound or so less than the local price. I am fairly certain that he kept no accounts to show him how much less his profits amounted to now than his weekly wages had been of old. Perhaps he never would have known

1 Note M, p. 211.
this had there been plenty of repairs for him to do; but as it was, he had to close-down within twelve months, being too honest a man to profit by bankruptcy.

In these circumstances it is not surprising that I began at last to feel a need of some change or other. It is true, I knew nothing about "Costing." Methods for that were not devised until years later; but, in the simpler things, I did after four or five years—say in 1889—know well enough that some of the work was not paying its way—was even being done at a loss. Yet too often I saw work going elsewhere which I felt ought to have come to me. And one thing, if not certain, was probable: under my ignorant management the men had grown not so much lazy as leisurely. I knew this but too well; but I did not know how to mend the matter. Too early, indeed, I had realised how impossible it would be to carry out any of the Ruskinian notions, any of the fantastic dreams of profit-sharing, with which I had started. The men in the shop, eaten up with petty jealousies, would not have made any ideals work at all. But to discharge them was not to be thought of. How could I even find fault with those who had taught me what little I knew of the trade and who could but be only too well aware how little that was? Moreover, they were my friends. Business was troublesome enough even on the best of terms, but I could not have found the heart to go on with it all at the cost of the friction which must have come if I had begun trying to "speed-up" my friends and instructors. Meanwhile, none the less, the trade these friends of mine depended on for a living was slipping away, partly by their own fault.

What was to be done? How long I thought it over is more than I can at all tell now; but eventually—probably in 1889—I set up machinery: a gas-engine, with saws, lathe, drill and grindstone. And this device, if it saved the situation, was (as was long afterwards plain) the beginning of the end of the old style of business, though it did just bridge over the transition to the motor-trade of the present time.

I suppose it did save the situation. At any rate there was no need for dismissals, and after a year or two there was trade enough—of the more modern kind—to justify my engaging a foreman, whom I ultimately took into partnership. It proved a wise move from every point of view save the point of sentiment.

The new head had experience and enterprise enough, without offending the men too, to develop the new commercial side—the manufacture of trade-vans and carts—when the old agricultural side of the business was dying out. Wood-work and iron-work were still on equal terms. Neither my partner nor myself realised at all that a new world (newer than ever America was to the Pilgrim Fathers) had begun even then to form all around us; we neither of us dreamt that the very iron age itself was passing away or that a time was actually near at hand when (as now) it would not be worth any young man's while to learn the ancient craft of the wheelwright or the mysteries of timber-drying. It might be that improved roads and plentiful building were changing the type of vehicles wheelwrights would have to build; but while horses remained horses and hill and valley were hill and valley, would not the old English provincial lore retain its value? We had no provocation to think otherwise, and yet:

And yet, there in my old-fashioned shop the new machinery had almost forced its way in—the thin end of the wedge of scientific engineering. And from the first day the machines began running, the use of axes and adzes disappeared from the well-known place, the saws and saw-pit became obsolete. We forgot what chips were like. There, in that one little spot, the ancient provincial life of England was put in a back seat. It made a difference to me personally, little as I dreamt of such a thing. "The Men," though still my friends, as I fancied, became machine "hands." Unintentionally, I had made them servants waiting upon gas combustion. No longer was the power of horses the only force they had to consider. Rather, they were under the power of molecular forces. But to this day the few survivors of them do not know it. They think "Unrest" most wicked.

Yet it must be owned that the older conditions of "rest" have in fact all but dropped out of modern industry. Of course wages are higher—many a workman to-day receives a larger income
than I was ever able to get as "profit" when I was an employer. But no higher wage, no income, will buy for men that satisfaction which of old—until machinery made drudges of them—streamed into their muscles all day long from close contact with iron, timber, clay, wind and wave, horse-strength. It tingled up in the niceties of touch, sight, scent. The very ears unawares received it, as when the plane went singing over the wood, or the exact chisel went tapping in (under the mallet) to the hard ash with gentle sound. But these intimacies are over. Although they have so much more leisure men can now taste little solace in life, of the soft that skilled hand-work used to yield to them.

Just as the seaman to-day has to face the stoke-hole rather than the gale, and knows more of heat-waves than of sea-waves, so throughout. In what was once the wheelwright's shop, where Englishmen grew friendly with the grain of timber and with sharp tool, nowadays untrained youths wait upon machines, hardly knowing oak from ash or caring for the qualities of either. And this is but one tiny item in the immensity of changes which have overtaken labour throughout the civilised world. The products of work are, to be sure, as important as ever: what is to become of us all if the dockers will not sweat for us or the miners risk their lives? That civilisation may flourish a less-civilised working-class must work. Yet others wonder at working-class "unrest." But it remains true that in modern conditions work is nothing like so tolerable as it was say thirty years ago; partly because there is more hurry in it, but largely because machinery has separated employers from employed and has robbed the latter of the sustaining delights which materials used to afford to them. Work is less and less pleasant to do—unless, perhaps, for the engineer or the electrician.

But, leaving these large matters, I would speak of a smaller one. Is there—it is worth asking—such laughter about labour, such fun, such gamesome good temper, as cheered the long hours in my shop in 1884? Are we not taking industry too seriously to be sensible about it? Reading of "Scientific Management" I recall something quite different from that—something friendly, jolly, by no means scientific—which reached...
staple; and over this was linked a short piece of chain hanging down from the door. So the door was pulled tight up to the bar. But, “to make assurance doubly sure,” a pinule which hung down from the pole—a small pointed piece of iron no bigger than your little finger—held this link down over the staple. When you had attended to this the front of the shop was safe for the night. After this, all you had to do was to pick your way through the dark to the back door and padlock that, and the shutting-up was done.

So it must have been accomplished for over a century and a half. And I recall it now as an example of the shifts men were put to, before the iron age had got on the move again.

NOTE K. TO PAGE 172

A leather apron (mentioned by Shakespeare in *Julius Caesar*), made of chamois (“shammy”) leather, was a blacksmith’s protection against the sparks that flew up under his hammer.

Neat’s-foot oil (not mentioned in the text) was always called for by Will Hammond when he unshipped and dragged into the daylight his bellows to be oiled. I never bought neat’s-foot oil for any other purpose and to this day I am ignorant about its advantages; but Will Hammond demanded it on these occasions and I got some for him from a local saddler.

When Will’s hands chapped in the winter, his remedy was to seal up the chaps with cobbler’s wax.

NOTE L. TO PAGES 43, 178

The tardiness of farmers, putting off sending to the wheelwright until the last, was no new thing. As long ago as 1641 Best unawares owned to it in his *Rural Economy in Yorkshire* (Surtees Society, 1857). He says (p. 35):

“About the time that wee beginne to cutte grasse, or howsoever the wecke afore wee intend to loadye hey, wee sende wordes to the wright to come and see that the axel-trees and felses of the waines bee sowndes and firmes, and to put on their shelvings, and likewise to put in stowers, where any are wanting.”

And again (p. 40):

“It is a good way to speake to the foreman, afore you beginne to leade (winter corn), to see the waines bee well-gressed, and aloe to have five waines made ready, that you may always have one in readinesse, for fear that some chance to miscarry or bee defective, and thus doing you shall never bee in dainger of losing a good opportunity, or seekinge the implements when you should use them.”

Plainly the disadvantages of being dilatory were not unknown.

NOTE M. TO PAGE 198

In his *Six Weeks’ Tour through the Southern Counties* (3rd edition, 1772) Arthur Young gives the following table of prices for farm tackle in various districts he passed through:

<table>
<thead>
<tr>
<th>WAGGONS</th>
<th>CARTS</th>
<th>PLOUGHS</th>
<th>HARROWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>£</td>
<td>1 d.</td>
<td>£</td>
<td>1 d.</td>
</tr>
<tr>
<td>Near Bury</td>
<td>25 0 0</td>
<td>12 0 0</td>
<td>11 0 0</td>
</tr>
<tr>
<td>Braintree (o)</td>
<td>20 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Chelmsford</td>
<td>18 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Crickly Hill</td>
<td>9 0 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Devon to</td>
<td>10 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Salisbury</td>
<td>10 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Salisbury</td>
<td>10 0 0</td>
<td>6 0 0 0</td>
<td>1 0 0 0</td>
</tr>
<tr>
<td>Bruchalk</td>
<td>15 0 0</td>
<td>12 0 0</td>
<td>1 0 0 0</td>
</tr>
</tbody>
</table>

“These prices,” he says, “vary from the prices of timber, iron, and workmanship.”

The low prices at Lanvachers seem to point to a survival of still earlier prices in some isolated village shop. In this connection it may be noted that in October, 1701, Lady Grisel Baillie near Edinburgh paid £4 8 Scots (4 8 sterling) for a cart at Mellerstane.

These Scottish carts may have been what Celia Fiennes at about the same date called “Dung-potts,” on which “the wheels are fastened to the axle-tree and so turn altogether.”

Young gives further the following estimate for sundry farm tackle, for stocking a new farm:

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>One broad wheel waggons</td>
<td>£7 0 0</td>
</tr>
<tr>
<td>Three narrow ditto</td>
<td>£7 0 0</td>
</tr>
<tr>
<td>Six carts</td>
<td>£7 2 0 0</td>
</tr>
<tr>
<td>Three pl. harrows</td>
<td>£6 0 0 0</td>
</tr>
<tr>
<td>Three rollers</td>
<td>£6 0 0 0</td>
</tr>
</tbody>
</table>

Amongst my father’s papers (but I have no idea where this one came from, or who “Chales Faukner” was, or who Isaac Holloway) is the following wheelwright’s bill, in which the low prices are worth noting:

1790 Mr Chales Faukner to Isaac Holloway

25 December for a New Duncart | £1 16 0 |
| for a ex to the Cart | £0 5 6 |
| for two dour bourds | £0 0 8 |
| for filing the sharps | £0 0 8 |
| for a Cay stick to ye Cart | £0 0 4 |
1 January 1791 for takeing down a waggons and putting up a fram | £0 1 0 |
| for putting two stans | £0 0 6 |

198-2
NOTES

29 for a Bitel and Handel ...................................... 0 1 7
for a ar Handel .................................................. 0 0 6
23 February for a wagon Sharp .................................. 0 0 3
28 for a Handel to a plough ...................................... 0 1 6
for a Broad Bourd .................................................. 0 0 1 6
13 March for a Chrow stef ....................................... 0 0 10
for two pear of Heams .......................................... 0 3 4
14 April for a Hearn .............................................. 0 0 7
29 for a pear to a plough ........................................ 0 0 6
5 May for a pear of Cart woles .................................. 1 14 0
20 May for a Box to a plough .................................... 0 2 0
for a Chrow stef .................................................... 0 0 1 6
for a Broad Bourd .................................................. 0 1 6
for two Larg wippances ......................................... 0 1 4
for a Cay in a tail Lader ........................................ 0 0 8
28 for sheathing a plough ....................................... 0 3 0
for stearing the plough ......................................... 0 0 6
for a Broad Bourd .................................................. 0 1 6
for taking down a fram and putting up a waggon .......... 0 1 0
13 July for a pear of sharps ..................................... 0 6 0
12 October for a Broad bourd ................................... 0 1 6
24 Nofember for a Chaf Cuting Box............................. 0 8 0

5 19 2

One Hog W 27 at 3 pr Ston ........................................ 4 1 0

Seteld this bill by

Mr ISAAC HOLLOWAY

GLOSSARY

ARM. The end of an axle on which the wheel runs.
AXLE-BED. The wooden case (usually of beech) for an axle.
AXLE-BLOCKS. Pieces of wood on top of an axle-bed to carry the wagon or cart at a higher level.
AXLE-TREE. The whole axle, inclusive of the arms, fashioned out of one piece of timber. (This was often called "wooden ex.")

BACK. (of a felloe). The convex outer side, covered by the tyre.
BACK-BAND. A ridge-tie (q.v.).
BACK-IRON. The part of a plane screwed against the blade, to keep the shavings thin.
BARS. One of the stout cross-timbers in a dung-cart bottom. Wheel-barrowes, being made on the same principle, were also framed-up with bottom bars.
BARRELLED. Shaft-eyes or other irons forged out in the shape of a barrel.
The barrelling kept them strong, while it lightened them.

BARNS. Bundles of the "spyes" or lightest branches of timber.
BEATLE or BEETLE. A heavy two-handed mallet, used with wedges for cleaving wood, where a sledge-hammer would not do.
BELLY. The inner (hollow) curved surface of a felloe.
BIT or BRIT. A tool for boring wood. (See Brace and bits.)
BOARD. The part of a vehicle that receives the load.
BOLSTER. (i) A tool for fitting into a blacksmith's anvil, bearing the impression of some special shape the iron is to take.
(ii) A thick piece of timber (usually beech or elm) across under the pillars (pillows?) of a wagon, to support the head.
BOLT. (i) One of the wooden bars (there were usually two) at the back of a pair of shafts.
(ii) Bolts and nuts (once called pins) were smallish iron dowels, with head at one end, and, at the other end, a nut for tightening.
BOND. An iron ring round the stock or nave of a wheel.
BOX. (i) A pair of handles hinged together, so as to be closed on to the bottom of a pit-saw for the bottom-sawyer's use.
(ii) The hardened iron centre of a wheel, in which the arm runs.
BOXING-ON. Fitting a wheel on to its arm by letting-in and wedging the box.

BRACES. (i) Wooden pieces across right-angled corners, as between shafts and shaft-bolts. Braces lent themselves to graceful shape and much shaving.
(ii) Brace and bits. Brace. A tool for boring. One part of it could be pressed against the waist of the workman and so held tight against the work, leaving the man both his hands free. To this part was swivelled a rotary crank, worked round and round with the right hand; a detachable boring tool or bit being fastened into the foot of the crank.
The bits were of three sorts:
(i) Centre-bits, for starting holes finished by augur.
(ii) Shell-bits. Hollow gouges.
(iii) "Twisty-bits." Spiral tools which in course of time superseded centre-bit and augur.
GLOSSARY

BREAD-STROKE. A line cut in while a stock was being turned, to mark the place for the front of the spokes.

BUMPER. A thick wooden end bolted to the main side or body-timber of a tip-cart, so as to take the shock and the wear of tipping. The bumper was shot with iron.

Burner. A pointed rod of iron, heated for burning away in a hole any roughness left by the auger or bit.

Butterfly. A simple design shaved upon a piece of timber with the draw-shave.

Buzz. A three-cornered chisel, used chiefly for clearing out the corners of mortices in a stock.

Carriage. That part of a four-wheeled cart to which the wheels are attached, forming at the same time a detachable carrier for the body. Farm-waggons had two carriages—the fore and the hind. So had timber-carriages. In vans, drays, and all "spring" vehicles the hind wheels were hung on to the body; while the fore-carriage, running on the front wheels, was the "under-carriage."

Cast. To twist or warp.

Clear herself. A saw (always of feminine gender) was required to push out its own sawdust as it went.

Clean or Clete (probably akin to clout, infra). A patch of iron, usually for mending broken timber, but sometimes (as in locking-cletes) put on to new timber in places likely to be worn.

Clout. A lump of dirt that has been pushed out, molten, from the smith's fire.

Clip. An iron clutching the axle-arm up into the axle-bed, and fastened itself by clip-pins, these being long bolts tying the whole arrangement securely under the cart body.

Clout. An iron plate let into the arm of a wooden axle (on the underside) to take the wear of the box in the revolving wheel.

Lying flush with the wood, and requiring to be very smooth and exact, the clout was fastened with special countersunk nails called clout-nails.

Coach-screw (or nut-head). A big screw with a square head, for winding into place with a wrench instead of with a screwdriver.

Cold-chisel (often called hard-chisel). A chisel of specially hardened steel, for cutting cold iron.

Collet. A special ring on an axle-arm, between the Lynch-pin and the box of the wheel, to keep the push of the wheel from grinding into the Lynch-pin.

Coomed-up. Possibly gummed-up. A wheel on which the grease had gone dry and stiff was said to be coomed-up.

Copse. (i) A thin piece of iron held in the felloes of a cart at a distance away, the whole being held up by a stay from the stroucer.

Copse. (ii) (for harrows, etc.) An iron turned into a loop to clutch the end of a piece of wood, so that a horse could be harnessed to it.

(ii) On the body of a cart or waggon a copse was a thin piece of iron helding the outrave at its proper distance away, the whole being held up by a stay from the stroucer.

Cord-wood. The smaller branches of timber, stacked in "cords"; used chiefly as firewood.

Coutter-pin. A minute split-pin, inserted through a hole close outside a nut. When its ends are then spread it cannot get out of the hole nor will it let the nut run off.

Dag. A large-sized harrow.

Draught-pin (see Pin). An iron rod for attaching the shafts of a four-wheel (waggon, timber-carriage, lorry, van, or drag) to the fore-carriage.
GLOSSARY

Sometimes there were two short draught-pins—one for each shaft. Sometimes
one draught-pin spanned the whole width. In either case the draught-pin
was kept from working out of its place by a split-key (q.v.).

DRAW-BOARD-PIN (see Pin). A wooden peg so inserted as not only to hold
a tooth in a mortice but also to draw it up very tight there.

DRAW-DOWN. The blacksmiths' word for hammering a piece of iron thin.

DRAW-OUT. To extract a spoke from a stock. (Used in the same way as for
a tooth.)

DRAW-SHAVE. A stout and long knife-blade, with handle at both ends,
for pulling or shaving away the superfluities of timber.

DRAYEL. A strong loop of iron stapled into the outside of each shaft, near
the front end, so that the chains for another horse could be hooked in.

DRUG-BAT (Drug-bat, drug-shoe, or skid-pan). A thick cast-iron shoe
carried (by chain) on front of waggon or van, so that, on going down a hill,
it could be let down near the hind-wheel. So skidded, the wheel did
not go round but had to be dragged forward and too great a pace was checked,
while the cast-iron pan, and not the tyre that lay in it, took the wear and tear
of grinding into the road.

DUMMY. A rough three-legged stool, with a long wooden bar rising from
the centre. The bar was bored with holes all up, into which the workman
could put his hand-lamp at any convenient height.

EXEBED. The usual name for axle-bed.

FALSE-BOX. A thickish iron ring spiked to the back of a stock round the
true box, and standing out so as to prevent dust or dirt from slipping into the
box.

FALSE SPLINTER-BAR. If the fore-carrige, with its splinter-bar, was made
for only one horse, a longer splinter-bar could be made to hang in front of it.
Two horses could then be harnessed side by side. This false splinter-bar had
all the fittings for double-shafts, or even for a pole and traces.

FELLOE. One of the wooden sections of the rim of a wheel.

FELLOE-BLOCK. A length of timber for cutting into one or more felloe.

FELLOE-BOUND. The condition of a wheel in which the felloes were too
long, so that they tightened-up together before the spokes had gone into place.
(See Dowel-bound.)

FELLOE-HORSE. A complicated implement into which a felloe could be
wedged aslant on its back, while the wheelwright adzed-out the curve of its
belly.

FITCH. The half of a tree which has been sawn asunder lengthwise.

FOOT (of a spoke). The flat part or tenon mortised into the stock.

FORE-WAY. When a cart was badly balanced, so as to throw too much
weight forward on to the horse's back, it was said to be fore-heavy.

FOREWAYS. A forward angle given to the arms of an axle, so that the wheels
revolving on them were less likely to run off.

FOXY. Oak-timber is foxy hearted, when the heart of it decays into a
rusty string of fibres.

FRESH. Timber not completely seasoned. Green.

FROW. Brittle. Timber (cut from a tree already ageing) was called frow,
or "frow as a carrot."

FULLER. An iron tool (held in a rod) for hammering iron tyres into cor-
rugations, so as to increase their circumference.

GALLING-PLATES. Two small squares of iron screwed in to face one another
so as to take the friction where two timbers met and might chafe. Especially
was this the case where the body of a tip-cart hinged down upon the shafts.

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rugations, so as to increase their circumference.
for tenacity of hold, the former simply had to support any given object's weight. Hogs were of all shapes; but horses always were framed up on four legs.

I remember them, and describe in their proper alphabetical place, Felloe-horse; Saw-sharpening horse, Shaft-horse, Wheel-horse.

**HOUNDS.** Parts of the framework of a fore-carrige.

**JARVIS.** A hollow plane for rounding-up the sides of spokes.

**KEY.** (i) A slat of wood across from one side to the other of an old-fashioned long-boarded waggon-bottom or cart-bottom. Usually oak.

(ii) A similar slat for harrow or drag, or fore-carrige.

(iii) A slender piece of wood (preferably ash) uniting the sides of fore or tail-ladder.

(iv) A thin piece of iron, about as big as a knife-blade, for dropping down through a slot in the end of an iron bar or pin, thereby preventing any sideways movement. (See Split-key.)

(v) "To Key" a tip-cart was to put in the key-stick that kept it from tipping inopportunely.

**KEYING-IRONS.** Part of the apparatus for keeping a tip-cart rigid when it was not wanted to tip.

**KEY-STICK.** A slender piece of wood containing, at each end, an iron crank for "keying" the body of a tip-cart down on to the shafts.

**KNOCK.** The shoulder of a spoke on which the fellow should finally rest after being wedged into place.

**LADDER.** A strong though light framework for extending when desired the loading capacity of cart or waggon. These ladders were made with two stoutish side-pieces connected by two thin but tough slats or keys, and were chiefly used for hay. The fore-ladder, whether for cart or waggon, stretched out a foot or so higher than the horse’s back. The tail-ladder (for waggon only) carried the load back beyond the farthest stretch of the opened tail-board.

**LARKOW.** Larkows (four, or sometimes five) were the main timbers of harrows and of drags. The tines (q.v.) were mortised into them, and they were connected by "keys."

**LAYING.** Strengthening a length of iron or steel, with another piece welded into it.

**LIGHTER.** A thick bar of wood across the front "sides" of a dung-cart, lying just over the back ends of the shafts. One end of the lighter formed a handle for tipping the body; and through a mortice in the middle of the lighter stood up the hinged tip-stick from the shafts.

**LINE.** A line or "chalk-line"—a strong cord wound on a reel—was the wood-worker’s instrument for marking future saw-cuts or axe-cuts on his timber.

**LINE-OUT.** To mark with help of a chalk line.

**LINING.** Wooden boards laid along the "sides" of a waggon.

**LOCK.** The turning of the fore-wheels, in relation to the hind-wheels.

**LOCKING-CLETS.** Two thick plates of iron nailed to a waggon-body to receive the wear of the tyres, just where the fore-wheels cut into the body when looking round.
Glossary

or chiselled out of oak. Made very slender yet tapering they were hammered in until they grew thick, when the ends of them were cleanly chiselled away. For various kinds of pin see clip (pins); draught-pin, draw-board-pin, long-pin, round-pin, tail-pin.

Pinch. Of a saw that cut too narrow a cut and worked tightly in it.

Pinule (called pinnel). Any round and pointed iron, about as big as your finger or smaller, commonly chained near to its hole so that it was always ready to be dropped in when wanted.

Plough-beam. The backbone or main timber of a plough, to which all the other parts were attached.

Plough-boit. A large and heavy whipsnipe.

Pole. (i) The long beam which, in timber-carriage and farm-waggon, joined together the two under parts, viz., the fore-carriage and the hind-carriage. The fore-carriage, with its round-pin (q.v.) going down through the front end of the pole, could pivot round on it. Not so the hind-carriage, which always had to trundle along in the rear of the other, led by its pole. In waggon the pole was fixed to the hind-carriage; but in timber-carriages it was much larger and heavier, and was made to slide to greater or less length to suit the load.

(ii) In later times a pole was used (as with omnibuses) instead of double shafts, for harnessing a pair of horses side by side.

Propstick. A propstick was often hung under each shaft of a two-wheeled cart, to be let down when the cart was still, so as to take the weight and relieve the horse’s back.

Pummel. The hinder end of the main side of a dung-cart, standing out beyond the tailboard and serving as a “bumper” in tipping the cart.

Quiler. (Perhaps coiler.) One of the fore-irons on a shaft. In later years a hook strung on the long-staple did duty for it.

Race. A pocket clap-knife with point turned back. It was sharpened at the turn, for scratching marks on wood.

Rail. See Tailboard Rails.

Range (of wheels). To keep in the same direction.

Ratchet. A boring tool, handy for working in narrow corners.

Rave. One of the slender side-rails in the framework of waggon or van or two-wheeled cart.

Ridge-tie. A chain of double links twisted into one another, for casting over a horse’s back to hold up the shafts. It served the opposite purpose to the leather Wantie or Belly-band, and was sometimes called Back-band.

Rimer. A square rod of steel or hardened iron, to be turned round and round inside a metal hole until its sharp corners have enlarged the hole.

Ring. A ring of iron, discovered only when the saw disclosed bark grown over by sound wood.

Ring. The complete circle of fellows round a wheel.

Ring-stake. A heavily made hook, with ring at the end, for turning over a leg of timber. The “dog” bit into the timber; the “ring” was for inserting a lever.

Ring and Start. An iron ring, about two and a half inches in diameter, shut (loose and dangling) into a pointed iron peg. This peg, or “start,” was driven into the underside of a shaft, and through the ring dangling from it the trace was threaded when the horse was harnessed.

Rings and Gudgeons. The rings were two broad iron furres for the stock of a barley wheel, to keep the stock from splitting when the gudgeons—the iron spindles—were driven in.

Ring-shake. A circular shake in a tree, following one of the rings of growth, and dividing the outer part of the tree from the inner part, so that the latter was liable to come out like a pitch.

Riser. An additional timber bolted to the top of a pillar or exed, so as to raise the body higher.

Roller (or roller-scotch). A small cylinder hung so as to trundle along behind a waggon wheel moving up hill, to be in place for scotching the wheel immediately, if for any reason the waggon stopped.

Roller-chain. One of the light chains by which the roller was held in place.

Roller-cheek. A slender iron into which the roller was suspended, at the end of the chain.

Rose nail, or cut nail. A flattish nail made of wrought-iron, very useful for its toughness before wire nails were introduced.

Round-pin. The stout iron pivot that held the head of a waggon down in its place, allowing the fore-carriage underneath the head, attached to the horses, to turn freely. The round-pin answered to the perch-bolt in coach-horses.

Router. A tool for carving out the centre of a stock in a wheel, to admit the box.

Routes. The same as runs. A waggon or dung-cart was required to “take the routes,” i.e. to keep to the usual runs.

(A connection between this word and route appeared when men in my shop spoke of the route-marching of soldiers from Aldershot as rout-marching.)

Run. (i) To split easily.

(ii) To “run” a wheel was to trundle it along by hand.

Ring. One of the rounds or steps of a builder’s ladder—usually made of an old spoke.

Running-down. When a nut was tight (with rust or otherwise) the blacksmith had to ease it up-and-down on its bolt. This was called “running-down.”

Samar. An implement for drawing two felloes very tight together, in readiness for nailing a strake over the joint between them.

Saw-set. A small wrench for straining outwards or inwards the teeth of a saw.

Saw-sharpening horse. A long four-legged stool, with pegs upright in it; slotted so that a saw could be rested in the pegs while its teeth were being filed.

Scarfing. Thinning (with the hammer) any two pieces of iron where they are to be welded together.

Scratch-sett. A wooden gauge with an iron tooth for scratching, as a sharp knife, an indelible line to be followed with axe or plane or chisel, with a sharp knife, a broad line to be followed with axe or plane or chisel.

Scriber. A sharply-pointed piece of iron, with handle-end turned into a loop, to be used where a “carpenter’s” (wedge) pencil would not go. A cross-bar, made so as to slide up or down on an upright, the shaft-horse. A cross-bar, made so as to slide up or down on an upright, the shaft-horse. A cross-bar, made so as to slide up or down on an upright, the shaft-horse.
GLOSSARY

Glossary terms:

Hostess: Each set of shaft-irons comprised two long staples, sundry hooks threaded on the staples, two drawyls, two quilers, and two ring-and-starts.

Horseshoe: The old-fashioned name for shafts.

Horseshoe-hole: A ditch, about eight inches wide by five feet long, between sills, kept full of water for cooling tires or strakes.

Horseshoe: The hindmost of the cross-timbers in the bottom frame of a dung-cart.

Horseshoe: The projections making the triangular face of a spoke, precluding the spoke from being driven any farther down into the stock.

Horseshoe-strap: A strap, made like a split key-ring, for inserting into a broken chain by a carter when away from a smithy, or in any emergency.

Horseshoe-lock: ( Pronounced shut-lick in West Surrey.) Either the foremost or the hindmost cross-timber in the bottom of a wagon, or of any vehicle other than a dung-cart. The function of the shut-lock was to hold the longitudinal timbers in place. ( The Sussex name was Dware.)

Horseshoe: The blacksmith's term for welding.

Horseshoe: The main outer timbers in the bottom framework of any vehicle, barrow or truck.

Horseshoe: Another name for a drug-bat ( q.v.).

Horseshoe: The outside pieces of a tree, which remain after the middle has been sawn into plank or board.

Horseshoe: The wooden surface of a wheel; the surface which would meet the ground were it not shod or protected by strake or tyre.

Horseshoe: Preparing ( by chopping) a new sole on a worn wheel, in readiness for a new tyre.

Horseshoe: A wrench for nuts.

Horseshoe: The front cross-piece of a fore-carrige, containing the iron "eyes" for hanging the shafts.

Horseshoe: Made by bending the two ends of a thin piece of iron together, so that they could be thrust, flatwise and together, through a slot in the end of a pin. Once through, they were separated and curled back, one each side, and prevented the pin from slipping out of its place.

Horseshoe: A tool for straining two spokes together after they have been driven into the stock, so that their tongues will be close enough for a felloe to be slipped over them.

Horseshoe: The finishing tool for smoothing away any edges left by the draw-shave, after a timber has been sufficiently reduced in size. The spoke-shave was characteristically useful in curved places like the front of a spoke, where a smoothing-plane could not be used.

Horseshoe: Of the body of any vehicle. To bulge outwards beyond the intended width.

Horseshoe: A light rod holding the trace-chains asunder, when horses are harnessed in a team.

Horseshoe: One of three minute iron pegs driven into a stock against the bond and then bolted over on the bond to fix it in place.

Horseshoe: Tenons cut at the ends of spokes, for mortising into the felloes.

Horseshoe: The part of the butt of a tree in the ground, where it curves outwards for the roots.

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Glossary terms:

Stands or Standards: The upright bars in any wooden framework, e.g. in tailboards.

Streak: The front-staff, middle-staff and hind-staff were iron supports built into wagon bodies or raved-cart bodies, to prevent the raves from spreading.

Stick: The trunk of a tree after it has been thrown.

Stopper: A stopper-clasp, stopper-hole. To admit the Lynch-pin a slot was cut through the nose of a stock so that the Lynch-pin could be dropped through into the arm. The stopper-hole was kept closed by the stopper, a small block of wood exactly fitting it. And lest the stopper should fall out when the wheel turned, that too was held in place by the stopper-clasp, which was stapled to the stock itself.

Streak: An iron "shoe" over the junction of two felloes, stretching from centre to centre of the felloes. ( An old stride, standing on its edge, would sometimes do instead of a fender in front of a narrow fireplace.)

Streak: Chimney. The wide brick fireplace or oven for heating strakes.

Strap: Iron hammered thin and provided with holes, for nailing or screwing to a piece of wood.

Strap-bolt: A useful contrivance by which a piece of wood could have nailed to one end by a "strap," a bolt and nut (instead of a tenon) to tighten it to a cross-piece.

Strouter: An upright support or strut for the side framework of wagon or cart.

Strouter: A Strap-bolt holding two pieces of timber together. AB, strap-bolt; C, nut.

Swan-Neck: Curved hooks fastened to the shafts of a dung-cart, for attaching the shafts to the body. In other carts, and in my shop, swan-necks were replaced by the costlier but steadier hook-capping irons.

Sweep: The back-bar across the fore-carriage of a wagon or timber-carriage working round under the pole.

Swinging a wheel: Putting it in free revolution, round and round on its axle, without touching the ground.

Tail: ( i) The hinder end of a wagon or cart.

(i) The hinder end of an arm.

Tailboard: The top and bottom pieces of a tailboard frame.

Tail: Head: The opposite fault to fore-heavy. In a tail-heavy cart the tendency was to lift the horse off the ground.

Tail-pin: ( i) The pin (fastened with a split-key) which held the tail of a waggon down to its place on the hind-carriage.

(i) The strong bolt by which the tail of an arm was kept up in its place in an axle-bed.

Tap: ( i) The screwed groove in a nut, fitting over the thread or worm of the bolt. In an "untapped nut" the groove had not yet been cut.

(ii) The tool for cutting it.
GLOSSARY

THREAD. The thin upstanding spiral on a bolt or screw.

THROW. To throw a tree was the West Surrey word for to fell it.

TIMBER-BOB. See Neb.

TINES. The long steel teeth in a harrow for scratching into the ground.

TIPPING-IRONS. Bent irons on the rear of a cart to serve as "bumpers" on the ground when the cart is tipped up.

TIP-STICK. (Sometimes of iron.) The upright bar in front of a dung-cart. It was hinged from the shafts through the lighter on the ground when the cart was hinged from the shafts through the lighter on the ground when the cart would have been too small to be thrown for repairing.

TWASY. A wooden bar to be hooked on, by its centre, to a harrow, while its two ends were chained to a horse. (A stronger whippance for ploughing was called a plough-bolt.)

WOOD-LOUSE. A small pinch of skin, black with contained blood.

WORM. The same as Thread.

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George Sturt, wheelwright

George Sturt owned and managed a wheelwright's shop in Farnham, Surrey, from 1884 to 1920. The shop, originally established in 1706, had been bought by Sturt's grandfather in 1810; all five sons had entered the business, and Sturt's father, who inherited in 1865, had expanded considerably by adding a smithy and a timber-yard. When he died suddenly in 1884 George, who was being educated for a profession, had to take control and learn the trade from his


* From The Wheelwright's Shop, Cambridge University Press, 1923, reproduced by kind permission of the George Sturt Memorial Fund.

When he sold the business in 1920 it was as a 'Coach and Motor Works' and 'the new machinery had almost forced its way in - the thin edge of scientific engineering'.

It was probably in 1885 that we left off on Saturdays at one o'clock instead of at four; and it may have been about the same time (but I have no recollection of it) that half-past five was substituted for six as the normal closing time. If the shop was 'making over-time' we took half an hour for tea and then went on again from six to eight. Including meal-times, this gave us a fourteen-hour day. The meal-times were, for breakfast half an hour (from eight to half-past); for dinner, from one to two. The ringing of Heath's bell across the street, was the signal. To see the shop empty at the first stroke for dinner was to know the source of that metaphor for quickness, 'To go like one o'clock'.

Though the normal hours were too long, the men were glad of over-time. In this connection it should be pointed out that in those days a man's work, though more laborious to his muscles, was not nearly so exhausting yet tedious as machinery and 'speeding-up' have since made it for his mind and temper. Eight hours today is less interesting and probably more tiresome than 'twelve hours' then. But when men welcomed over-time it was because with their 24s. for an ordinary week they were underpaid and were glad to add to the money. The addition was at the rate of 6d. an hour, I think. One odd thing, which I could never understand, was that jealousy which caused the men to regard it almost as a right for all to have over-time if one did; so that however pressed the smiths might be I hardly dared ask them to work longer without giving the same treatment to the woodmen. A pack of children I sometimes thought these grown men, all older than myself.

To say that the business I started into in 1884 was old-fashioned is to underestimate the case: it was a 'folk' industry, carried on in a 'folk' method. And circumstances made it perhaps more intensely so to me than it need have been. My father might just possibly, though I don't think he would, have shown me more modern aspects of it; but within my first month he took ill of the illness he died of five months later. Consequently I was left to pick up the business as best I could from 'the men'. There were never any 'hands' with us. Eight skilled workmen or apprentices, eight friends of the family, put me up to all they could; and since some of them had been born and trained in little old country shops, while this of my father's was not much better, the lore I got from them was of the country through and through.

The objects of the work too were provincial. There was no looking far afield for customers. Farmers rarely more than five miles away; millers, brewers, a local grocer or builder or timber-merchant or hop-grower - for such and no others did the ancient shop still cater, as it had done for nearly two centuries. And so we got curiously intimate with the peculiar needs of the neighbourhood. In farm-cart or dung-cart, barley-roller,
plough, water-barrel, or what not, the dimensions we chose, the curves we followed (and almost every piece of timber was curved) were imposed upon us by the nature of the soil in this or that farm, the gradient of this or that hill, the temper of this or that customer or his choice perhaps in horseshoes. The carters told us their needs. To satisfy the carter, we gave another half-inch of curve to the wagon-bottom, altered the hooks for harness on the shafts, hung the water-barrel an inch nearer to the horse or an inch farther away, according to requirements.

Even the mixing and putting on of the paint called for experience. The first two coats, of Venetian-red for the underworks and shafts and 'lid colour' (lead colour) for the 'body' prepared the way for the putty, which couldn't be 'knocked-up' by instinct; and then came the last coat of red-lead for the wheels and Prussian-blue for the body, to make all look smart and showy.

Not any of this could be left wholly to an apprentice. Apprentices, after a year or two, might be equal to making and painting a wheelbarrow. But it was a painful process with them learning the whole trade. Seven years was thought not too long. After seven years a young man, nearly 'out of his time', was held likely to pick up more of his craft in the next twelve months than he had dreamt of before. By then too he should have won the skill that came from wounds. For it was a saying of my grandfather's that nobody could learn to make a wheel without chipping his knee half a dozen times.

There was nothing for it but practice and experience of every difficulty. Reasoned science for us did not exist. 'Theirs not to reason why.' What we had to do was to live up to the local wisdom of our kind; to follow the customs, and work to the measurements, which had been tested and corrected long before our time in every village shop all across the country. A wheelwright's brain had to fit itself to this by dint of growing into it, just as his back had to fit into the suppliance needed on the saw-pit, or his hands into the movements that would place a felloe 'true out o' wind'.

Science? Our two-foot rules took us no nearer to exactness than the sixteenth of an inch: we used to make or adjust special gauges for the nicer work; but very soon a stage was reached when eye and hand were left to their own cleverness, with no guide to help them. So the work was more of an art - a very fascinating art - than a science; and in this art, as I say, the brain had its share. A good wheelwright knew by art but not by reasoning the proportion to keep between spokes and felloes; and so too a good smith knew how tight a two and a half-inch tyre should be made for a five-foot wheel and how tight for a four-foot, and so on. He felt it, in his bones. It was a perception with him. But there was no science in it; no reasoning. Every detail stood by itself, and had to be learnt either by trial and error or by tradition.

This was the case with all dimensions. I knew how to 'line out' a pair of shafts on a plank, and had in fact lined and helped saw on the saw-pit hundreds of them, before I understood, thinking it over, why this method came right. So too it was years before I understood why a cart-
last was yet far ahead. Not until the seasoned timber was proven on the workman's bench in five or six years' time would the final verdict be given; but the first test began on the saw-pit, when the sawyers 'opened' the yet 'green' or sap-filled tree. What did it look like? The wheelwright was most eager to know how it looked, that heart of ash or oak or elm, of so many decades standing, which no eye had ever seen before. Lovely was the first glimpse of the white ash-grain, the close-knit oak, the pale brown and butter-coloured elm. Lovely, yet would it dry into hard tough timber? Was the grain as straight as had been hoped? And that knot - right through one plank - how far did it go into the next? Every fresh tree, as the sawyers cut out and turned over the planks, at last gave rise to questions like these.

The oaks under the saw had the fresh scent of the forest, nameless as their colour. Elm didn't smell nice - an unclean smell. Sometimes from the ash came fumes as of wood-burning. Had the saw - it often grew too hot to touch - actually set something afire? But no. That penetrating odour, so disquieting in a woodshop until you knew its source, merely told that the ash-tree on the pit would probably turn out to be 'black-hearted'. A narrow band as if of ink-stain ran along the very core of the central planks. It was supposed to reduce their value slightly; but the wheelwright was thinking of use in his shop; and I, for my part, never grieved to see or to smell black-hearted ash. The texture of the grain told me more than the colour did.

Before the sawyers could begin, there was much for the owner of the timber to do, in deciding what they should cut it into. No doubt a builder or a shipwright would want different sizes and shapes, but no needs can have been more exacting or diverse than the old-fashioned wheelwright's. Length, thickness, 'turn' or curve, were all more or less fixed by traditions ever renewed, and even the sort of timber for different parts of wagon or cart or even wheelbarrow was not wholly a matter of indifference. Those portions which could not be easily replaced but might have to last for forty years or so had to be heart of oak. Nothing less durable would serve. Yet this limitation gave a sure guidance. It almost ear-marked the pick of the oak - the clean-run butts without bad knot or flaw - for the bottom framework of wagon or cart. And this gave the dimensions of the plank to be sawn, wagons taking the preference because the lengths required for them were none too easy to get.

Outside these limits there was indeed much opportunity for substituting one kind of timber for another (excepting in wheel-stuff). Tapering thicknesses of plank, to be sure, were set out for shafts ('sharps' we called them) usually in ash. But oak would do very well for this use, or even good elm, if some length or thickness or curve not prepared for in ash happened to be wanted.

Bearing in mind all the possibilities thus open, the wheelwright dealt carefully with each tree, deciding first the lengths it should be cut into, and perhaps altering his plans altogether if a bad knot after all turned out to be in the wrong place, or if the original intention would have involved too great waste in the total length. With a little pinching the measure here, and a little stretching there, it was usually possible to rescue odd and otherwise wasted inches and get them all together at the top into the two feet or so required for a 'felloe-block'. Lastly, the various points for cross-cutting the tree were scratched with a 'race' - a sort of knife with point turned back and sharpened at the bend for this especial purpose - and this done the wheelwright might pass on to the next tree. If he was really master of his timber, if he knew what he had already got in stock and also what was likely to be wanted in years to come, he kept a watch always for timber with special curve, suitable for frames, or shaft-braces, or wagon-heads, or hounds, or tailboard rails, or whatever else the tree-shape might suggest.

And when the sawyers had been instructed, still it was well to be near their work. Besides, the felloe-blocks, sawn down the middle, could often be profitably sawn again; and to pencil out the shapes on them gave the wheelwright much scope to exercise his ingenuity and his knowledge. It was in fact a fascinating task. I have spent hours at it beside the saw-pit. It must have been a cold job too. For it was always winter work, and sometimes snow lay on the felloe-blocks. It was cold, to handle them; cold to stand hour after hour trying the varying felloe-patterns on them. At least so I should suppose now; yet I have no recollection of feeling the cold at the time. The work was too interesting. The winter, the timber, the wheelwright's continuous tussle, the traditional adaptation, by skill and knowledge - all these factors, not thought of but felt, to the accompaniment of wood-scents and saw-pit sounds, kept me from thinking of the cold - unless to appreciate that too. Delightful? It was somehow better than that. It was England's very life one became a part of; in the timber-yard . . . Warm work, all this winter chopping of wheel-stuff was, and a good thing too. At six o'clock on a December morning the shop was raw cold. Men coming in out of the dark were glad of heavy work to warm them up before opening the shop to the winter day. As already explained, the windows were not glazed. As soon as the shutters were taken down - a little before breakfast at eight o'clock - the wintry air was free to come in, unless a piercing east wind or a driving snow were screened by putting up one of the shutters again. But of course this could not be effectively done during day-light; until it was dark once more the cold had to be countered by vigorous work. By half-past four or so the winter night allowed a more snug shuttering. The men kept on until six o'clock by artificial light.

'Twasn't much of a light. True, the cracks between the shutters or under the doors looked cozy enough to anyone passing outside, in the dark; but within . . . Fortunately men didn't want a very good light for felloe-chopping or spoke-dressing, for a good artificial light was not to be had in those far-off times. We worked by little hand-lamps of colza oil. Flat wooden pegs made handles for these lamps. The pegs could be stuck into a movable stand - a 'dummy' as we called it - and the lamp set down close to the work shed a dim but sufficient light on it; otherwise the shop was not lit up . . .
I should soon have been bankrupt in business in 1884 if the public temper then had been like it is now—grasping, hustling, competitive. But then no competitor seems to have tried to hurt me. To the best of my remembrance people took a sort of benevolent interest in my doings, put no difficulties in my way, were slow to take advantage of my ignorance. Nobody asked for an estimate—indeed there was a fixed price for all the new work that was done. The only chance for me to make more profit would have been by lowering the quality of the output; and this the temper of the men made out of the question. But of profits I understood nothing. My great difficulty was to find out the customary price. The men didn't know. I worked out long lists of prices from the old ledgers, as far as I could understand their technical terms.

Commercial travellers treated me well—Sanders from Auster and Company, Bryant from Simpson's, Dyball from Nobles and Hoare. The last-named, I remember, fearing that I was in danger of over-stocking, could hardly be persuaded to book an order for four gallons of varnish, when he was expecting it to be for only two gallons. It was not until customers had learnt to be shy of my book-learned ignorance, my simplicity, my Ruskinian absurdities, that they began to ask for estimates, or to send their work elsewhere.

The steadiness of the men was doubtless what saved me from ruin. Through them I felt the weight of the traditional public attitude towards industry. They possibly (and properly) exaggerated the respect for good workmanship and material; and I cannot blame them if they slowed down in pace. Workmen even today do not understand what a difference this may make to an employer. The main thing after all (and the men in my shop were faithful to it) was to keep the business up to a high level, preserving the reputation my father and grandfather had won for it. To make it pay—that was not their affair. Time seemed no object with him; he must get his edge. And he had a word I used to wonder at. For when a new plane or chisel proved over-brittle, so that a nick chinked out of it and needed grinding wholly away, Cook used to look disapprovingly at the broken edge and mutter, 'Crips.' What was that word? I never asked. Besides, Cook was too deaf. But after some years it dawned upon me that he had meant 'crips.'

Another implement to be turned with a handle was a drill, for drilling tyres for the blacksmiths. To put this round, under its horizontal crank, was harder work than turning the grindstone. The shaft of it went up through the ceiling to a loft, where a circular weight—a heavy iron wheel in fact—gave the pressure on the drill. Men took turn at drilling, for it was often a long job. I don't remember doing much of this; yet I well remember the battered old oil-tin, and the little narrow spoon, and the smell of the linseed oil, as we fed it to the drill to prevent overheating.

More interesting—but I was never man enough to use it—was a lathe, for turning the hubs of wagon- and cart-wheels. I suspect it was too clumsy for smaller work. Whenever I think of this, shame flushes over me that I did not treasure up this ancient thing, when at last it was removed. My grandfather had made it—so I was told. Before his time the hubs or stocks of wheels had been merely rounded up with an axe in that shop, because there was no lathe there, or man who could use one. But my grandfather had introduced this improvement when he came to the shop as a foreman; and there the lathe remained until my day. I had seen my father covered with the tiny chips from it (the floor of the 'lathe-house' it stood in was a foot deep in such chips), and too late I realized that it was a curiosity in its way...

But the want of machinery was most evident in the daily task of cutting up plank or board for other work, and of planing and mortising afterwards. We had neither band-saw nor circular saw. Most of the felloes were shaped out by adze and axe; the pieces for barrow-wheel fel­lows were clamped to a woodman's bench (for they were too short and small for an axe), and sawed out there by a boy with a frame-saw (I hated the job—it was at once lonely and laborious); the heavy boards were cut out (and edged up) with a hand-saw, being held down on the trestles with your knee (it was no joke to cut a set of one-inch elm boards for a wagon-bottom—you knew what it); but all the timbers for framework of wagon or cart, or harrow or plough or wheelbarrow, were cut by two men on a saw-pit...
Of the stock (the nave or hub) I hardly dare speak, such a fine product it was, and so ignorant about it do I feel. It is true that I learnt to buy stocks with confidence in my own judgement: I seasoned them, chopped them into shape, chose them at last to satisfy Cook. Nay, he occasionally asked my opinion, if anything dubious was discovered in working. But, as I had never enough skill of hand and eye myself, I always entrusted the actual turning and mortising of stocks to a trusty man—Cook as long as he lived, and after him preferably Hole. These men, I knew, would sooner have been discharged than work badly, against their own conscience. So I left the stocks to them, only liking to look at each stock when it was brought from the lathe, and to ‘weight’ it (poise it) in my arms and hear the wheelwright say, ‘Rare stock that.’ His enthusiasm was catching. I felt a glow of pride in having ministered, however humbly, to so noble a tradition. Then I left the stock again to the workman.

A lumpsish cylinder in shape—eleven or twelve inches in diameter and twelve or thirteen inches from end to end—a newly turned stock was a lovely thing—to the eyes, I thought, but more truly to sentiment, for the associations it hinted at. Elm from hedgerow or park, it spoke of open country. Well seasoned, it was a product of winter labour, of summer care in my own loft under my own hands. Long quiet afternoons it had lain there, where I could glance from the stocks across the town to the fields and the wooded hills. I had turned it over and over, had chopped the bark away, had brushed off the mildew while the quiet winter darkness had stolen through the shed, and at last I had chosen the stock for use, and put it into Cook’s hands...

So, when I had had my look, the wheel-maker—Cook or another—carried the stock to his bench, there to mark on it with straddling compasses the place for the first auger-holes, preliminary to mortising it for the spokes. A tricky job this. One young man, I remember, marking out his stock, prepared for an odd number of spokes—eleven or thirteen; though, every fellow requiring two, the spokes were always in even numbers; which error he did not detect until he had bored his stock and spoilt it. Too big for the fire, and too cross-grained to be easily split and thrown away, it lay about for months, an eyesore to the luckless youth who had spoilt it and a plain indication that it is not quite easy to mark a stock correctly.

Likewise was it not altogether a simple thing, though the skilled man seemed to find it easy enough, to fix the wobbly stock down for working upon. It was laid across a ‘wheel-pit’—a narrow trench with sills, about three feet deep—where iron clamps, themselves tightly wedged into the sills, held the stock steady back and front. Then the mortises were started, with auger-holes. How easy it looked! In my childhood I had heard the keen auger biting into the elm, had delighted in the springy spiral borings taken out; but now I learnt that only a strong and able man could make them.

The holes being bored, and before the actual mortising could begin, a gauge was attached to the front end of the stock, to be a guide for the coming operations. This gauge was a slender bar of wood, almost a lath—swinging round like one hand of a clock, but extending three feet or so beyond the stock. At the outer end of it a thin sliver of whalebone projected just so far as the front of the spokes would come if they had the right ‘dish’. Note that. The spokes would have to lean forward a little bit; and the gauge was set so that this might be attended to even in mortising the stock. Before ever a spoke was actually put in the wheelwright tested the place for it, shutting one eye and squatting down with the other to see that the front edge of the mortise was properly in line with the whalebone sticking out from the gauge. The principle was very much like a marksman’s taking his aim by foresight and back sight. One mortise having been cut, the stock was levered round with an iron bar so that the opposite mortise could be cut, and thus it was done all round, splinters or borings often dropping clear, right through the stock from one side to the other into the wheel-pit. The uncut ribs of wood left between the mortises were called ‘meshes’—a word that will be wanted again. I do not think we shall want again the word ‘buzz’—the name for the strange three-cornered chisel used for cleaning out the mortises of a stock and, to the best of my belief, used for nothing else, unless for enlarging the central hole in the stock. And now—how dare I go on to describe that swinging drive of the wheelwright’s action, fixing the spokes into the stock? Prose has no rhythm for it—the spring, the smashing blow recurrent at just the right time and place. The stock is to be imagined, ready at last, clamped down across the wheel-pit. From the front of it the gauge slants up; the dozen or fourteen spokes are near at hand, each with its tenon or ‘foot’ numbered (in scribbled pencilling) to match the number scribbled against its own place in the stock. For although uniformity has been aimed at throughout, still every mortise has been chiselled to receive its own special spoke, lest the latter should by chance have had any small splinter broken away after all. The true wheelwright would not take that chance. He intended that every spoke should really fit tight; and there he has the spokes all numbered, to his hand.

He picks up one in one hand, and with sledge-hammer in the other, lights to tap the spoke into its own mortise. Then he steps back, glancing behind him belie me to see that the coast is clear; and, testing the distance with another light tap (a two-handed tap this time) suddenly, with a leap, he swings the sledge round full circle with both hands, and brings it down right on the top of the spoke—bang. Another blow or so, and the spoke is far enough into the mortise to be gauged. Is it leaning forward a little too much, or not quite enough? It can be corrected, with batterings properly planted on front or back of top, and accordingly the wheelwright aims his sledge, swinging it round tremendously again and again, until the spoke is indeed ‘driven’ into the stock. It is battered over on the top, but the oak stands ﬁrm in the mortise, to stay for years.

For an hour or so, until all the spokes had been driven into a wheel, this sledge-hammer work went on, tremendous. I have seen nothing else like it. Road-menders greatly smite an iron wedge into the road they are
breaking up; blacksmiths' mates use a ponderous sledge at some of their work; foresters, cleaving, make great play with beetle and wedges; but so far as I have noticed, these men (like the 'Try-Your-Strength' men at a country fair) do not really know how to use sledge or beetle. They raise it up above their heads and bring it down, thump, with all the force of a very strong man, was able, with knack, to strike more powerful blows, and many of them too, in succession. With one hand close under the head he gave the sledge a great fling, then slipped the same hand down the handle, to help the other hand hold it in and guide it truly round its circle. By the time it reached the spoke the sledge had got an impetus. With the momentum of a stone from a sling, it was so to speak hurled down on its mark, terrific...

Paul Evett
composer*

Paul Evett was born at St Peters, Jersey, in 1886, the son of a battery sergeant-major in the Royal Artillery. The family later moved to Dukinfield, Cheshire, where he attended school to the age of eleven, leaving to work in a rope-and-twine factory. Having acquired an interest in printing, he was apprenticed to a printing firm in Colchester for six years, and on becoming a journeyman compositor in 1906 began to move about southern England in search of experience and variety of scene. The extract describes his progress up to 1912, by which time he was becoming an active member of the Typographical Association and was involved in a strike in Newport, Monmouthshire in 1911 over the employment of a woman monotype-operator. After the war he became an assistant reader and took a correspondence course from Ruskin College, Oxford, in English grammar; after a spell of unemployment in the early 1930s, he became the reader of the Law Times and for the Financial Times until 1940.

The extract is an interesting comment on the printing trade at the beginning of the century. Although a long-unionized industry, only 40 per cent of printers were trade unionists in 1911, and outside the great cities the union had limited influence. The Typographical Association was trying to enforce the rule that there should not be more than three compositors' apprentices in any shop, however large, and for this reason Evett, like many others, learned his trade in non-union shops, in country towns. His memoir also illustrates the slow adoption of recent mechanical inventions—for example, the linotype machine which had come to England in 1889, though Evett did not see one until 1907. The extract may be compared with the important mid-nineteenth-century autobiography of C. M. Smith, The Working Man's Way in the World, 1853 (re-published 1967).

My first introduction to the printing industry was in Stalybridge, Cheshire, in 1898 when I was about twelve and a half years old. We lived in Dukinfield. I had left school about twelve months before and had been working in a rope-and-twine factory. The reason for leaving school at so early an age was that I had reached the fourth standard and thus qualified to enter an examination entitling me to leave school and take up full-time employment. I passed this examination. I might mention that I am slightly lame, one leg being considerably smaller and a little shorter than the other, due to infantile paralysis, though in other respects I was then quite healthy and robust. The work in the rope-and-twine factory was proving somewhat too strenuous for me, for I had to run along the length of the rope-walk holding the ends of the newly made twine (or bant, as it was locally called), while my gaffer turned the frame on which the skeins were wound at a speed to suit himself rather than out of consideration for my lack of running power... Ever since a visit to a Stalybridge printer I had occupied my spare time in cutting type from cork and rubber, and bought myself a little rubber type-set and played about with these with very poor results, even by my own uninformed standards. I would put oil on newspaper pictures and obtain dim transfers therefrom. These occupations induced my parents to apprentice me to a printer.

We had now moved to Colchester and I was bound apprentice to Trinity Printing Works, for six years, to learn the art and mystery of the trade, and to keep out of taverns and houses of ill-repute, etc. The pay for the first six months was 2s. a week; for the second six months 3s. a week; second year 4s., third year 5s., fourth year 6s., fifth year 7s., sixth year 8s. A journeyman's wage was 6d. an hour; 25s. for fifty hours, 26s. for fifty-two hours. We worked fifty hours, and sometimes, when I grew a little older, I did surreptitious over-time.

At first, of course, I was the 'devil' in the machine room, and after learning the mysteries of washing-up and the art of becoming daubed with a variety of oily inks and stinking of paraffin and lye, I learnt to use a lumbering treadle platen without guards, now and again catching my fingers, without serious injury, for the platen seemed to be on springs, or was so loosely fitted that a slight squeeze was almost impossible. I did hurt my knee occasionally, if I kept my leg too straight, as then it got a mark, terrific...

* From My Life In and Out of Print: unpublished autobiography.
George Cook, so often mentioned in these pages, was not a very singular man in his own time, but he was of a type almost forgotten nowadays. I recall nobody like him in any English book at all. What comes to my mind in thinking of Cook is a village flavour—the flavour preserved in some of the tales of Alsace in various Erckmann-Chatrian books. His attitude was that of a very efficient if very unsophisticated provincial, keeping close to the materials of his own neighbourhood and in touch with the personal crafts of his own people. The craft in which he himself specialised had made him rather round-shouldered; he was narrow chested too and a little inclined to bronchitis. By no means a large man, and slightly bandy-legged and slightly stooping, with toes tending to turn in, he moved nimbly—you couldn't call it exactly fast—always at one quite respectable pace. His sallow face had but a few thin hairs for beard and whiskers. His speech, so quiet, was just a trifle “blobby,” as if he had something in his mouth, and to be sure he often was chewing a quid. The consequent spitting—anywhere and often—was not pleasant, but otherwise it was always agreeable to be where George Cook was. I never but once saw him angry—it was over some affair in his own family which he chose to confide to me—and even then he was not loud. I think his idea was to slip through life effective and inconspicuous, like a sharp-edged tool through hard wood. It was worth while to see him on a Sunday in most respectable black. I don’t know what he wore on weekdays. He took his breakfast and dinner at “The Seven Stars”; then, the day’s work done, he went padding off home—it was a sort of jog-trot—to Compton. Being rather deaf, he never had a companion; but, away from the shop, he had a pipe. Smoking, it hardly needs saying, was not countenanced in the shop.

Of course my acquaintance with him was chiefly at work—at his bench or his chopping block, at the wheel-pit or the lathe.
or the timber stack. From the front edge of his bench a small point of steel stuck out about an eighth of an inch. Very bright it shone, because he pivoted his spokes tightly upon it when shaving them. The other end of the spoke was pressed against his waist. For this purpose he wore, strapped round him, a thick leather pad. I never knew anybody else have such a thing, but I suspect it was a part of a wheel-maker's outfit, and only partially effective. During my father's last illness a hard place on his waist, puzzling to the doctor, was explained as due to spoke-shaving, but perhaps he used no pad. In later years Cook adopted some revolving clamps for this purpose.

He was a left-handed man. Other workmen might be annoyed by apprentices or ignorant boys using their sharp axes; but you didn’t do that twice with George Cook’s axe—it was too dangerous a trick. Why did the confounded tool, albeit so keen-edged, seem to avoid the hard wood and aim viciously towards your thigh, or try to chop your fingers off? The reason was that in making the “shaft” for it (every good wheelwright put the ash shaft or handle to his own axe) Cook gave to his a slight bias for the left hand instead of for the right. The blade too was ground on the unaccustomed side. And though you might not have noticed these peculiarities before, you soon were scared into learning something about them if you foolishly tried to use the axe. Cook smiled. Besides his axe, of course he put in the shaft for his adze and handles for his hammers. He made his own mallets and gauges, and the “pegs” for his chisels. Truly it would not have been easy to put him out with an edged tool. I have seen him filing a sharper “nose” to an auger. It needed a sharp auger for some of his work. When he was boring inch-and-a-quarter holes in a set of dung-cart felloes the sweat would pour in streams from his pale face; but he used to look round with a deprecating smile, as who should say, “I’m sorry, but it can’t be helped.” He had a little grease-box—that too hand-made—hanging amongst the row of chisels over his bench. But, come to think of it, every bench had this. A big auger-hole in a shaped-out block of tough beech served the purpose admirably. You could thrust your finger (I wonder why I
preferred the middle finger) into the grease-pot close at hand and easily take out grease for anointing both sides of your saw or the face of your plane.

Cook was, as I have said, deaf, and if you wanted to attract his attention when his back was turned it was useless to call to him. The best plan was to toss a little chip either to touch him or to arrest his sight. I laughed to myself once to see him and Will Hammond—far more deaf even than Cook—searching for something in a heap of felloe-patterns. Probably the blacksmith wanted a pattern for strakes. At any rate it was odd to see these two with their heads together making some sort of friendly conversation by involuntary signs, since neither could have heard the other’s mutterings. When Cook wanted a felloe-pattern for himself, he did not hunt long for a ready-made one. It was easier to him to strike out a new one that should be exactly what he required. But it must be said that no mere pattern, newly made out of thin oak, equalled the felloes he afterwards got out in accordance with it. When he had finished with a felloe, the belly of it (the inner curve) hewn out with his adze, was as smooth, to the exact dimensions too, as if it had been polished.

So much for his skill as a craftsman. But when he got home he became, rather, a villager, accomplished in genial rustic arts. The hamlet of Compton was a little nook of heath and scrubby oaks, tucked away warm and secluded between Culverlands and Waverley woods, an outlying end, I think, of Farnham Common. No high-road even now has found it. You get to it by narrow tracks of carts, up and down bosky hillocks, and I fancy the place is less populous to-day than it was forty years ago—which isn’t saying much. It was probably a haunt of squatters, like its more out-at-elbows neighbour, The Bourne (Bettesworth’s home), a mile away. Here dwelt Cook with his big family, in a little brick cottage, his mother (a widow then) living with him. Probably she was the owner of the cottage, and of the tiny hop-kiln adjoining it.

The hop-kiln, when I saw it, chiefly interested me as the quiet scene of George Cook’s annual labours. Every autumn, namely in September, he used to tell me he should be away from the shop for about a week, drying his (or perhaps he said his mother’s) hops. I wondered chiefly at his having the staying power to do this—for it was an unceasing sort of job. Seeing it was Cook I did not so much wonder at his ability; yet it was by no means every working man in Farnham who had the sense—the judgment—to dry hops, even when the hop trade was at its best and everybody looked upon a good dryer with a sort of friendly admiration. George Cook’s turn at it was probably a holiday for him. I like to think of him in that little quiet kiln with the pungent scent of the hops all about him—their golden dust looking like the September sunshine grown solid. To be there at home, with your pipe whenever you wanted, and no wearisome walking—it was a pleasant change from making wheels to order. Here, in the kiln, a man was his own master. The hops alone had any claim on him. If his arduous duty to them would allow—and Cook would enjoy it the better for its being arduous—he might trot up the ladder to the upper floor whenever he liked; and there, with the sleepy-scented hops on the floor behind him, he could stand at the open doorway and see over the little hamlet—the tiny hop-ground, his garden, the autumn woods—could watch the neighbours and his own family down there in the pleasant light, and feel himself a man of importance amongst them, forgetting his daily wage-earning. An acceptable break in his long year’s work this week must have made for him.

Of his garden I remember nothing. But I can surmise that the seasonal interests of it were his all the year round. Did he keep a pig, I wonder? That there was a donkey—of course with stable, hay, and all manner of country accessories—I do happen to know, for his mother’s donkey-cart was sometimes mended in the old shop.

But of all his country crafts the most real part to me was the making of elderberry wine. I surmised his gardening and his keeping of donkey and pigs; I heard of his hop-drying; but of the elderberry wine I had personal knowledge.

It was like this. One winter Cook was ill for weeks with some eye trouble that would not yield to the treatment of the
club doctor and in the end had to be treated at Moorfields Hospital. During that time I used to go to his cottage about once a week to make enquiries. This was after work was done. The walk out of Farnham up the hill into the night, then down the steeper hill under the pitchy darkness of Culverlands trees into the all but unknown murk of Compton—this mile and a half or so which was Cook’s daily portion when he was in health—found its goal when at last the cottage door was opened and, momentarily dazzled, I was let in from the night to the little warm-lit living room. Of all this, however, little or no recollection remains. Save for the light I cannot recover any memory of the room or its inmates. I only remember that I was expected to drink, and therefore did drink, about three parts of a tumblerful of hot elderberry wine. It was “the thing” to do for keeping out the cold, and it did keep out the cold. The Cooks evidently looked upon it as the natural reward after my walk and a proper preparation for the return. Two or three times this must have happened, and I surmise that the winter nights were cold as well as dark—that the ruts in the road were frozen hard under one’s feet, and so on. But the point now is this elderberry wine. It gives a provincial air. Anything less suggestive of the London suburbs can hardly be imagined. It means that the Cooks knew how to live in a country hamlet. Where a city dweller would be helpless this family profited by centuries of tradition, and they were keeping old England going (“old” England, not modern England) when they made their elderberry wine and warmed some of it up for a friend on a cold winter night.

I cannot remember when Cook left Compton and came to live in Farnham. It seemed a good thing for him; good to be nearer to the ignominious class division of these present times—I to the employer’s side, he to the disregarded workman’s. The mutual respect was decaying. Nor yet might Cook, for his part, view his own life with the earlier satisfaction. From being one of a community of rustics, he was becoming more and more a mechanic—a cog in an industrial machine. Those were not yet the days of “Unrest.” The stealthy changes which were destined, after thirty years, to out the old skill altogether seemed to Cook, if he discerned them at all, due to his advancing years. If life was meaner, less interesting, than of old, was it not chiefly because he had been born too soon? He would have said so. He remained an opinionated Conservative and read The Standard every day.
Scotland’s appeal to the general holidaymaker and tourist lies in the immense variety of scenery and interest to be found in this small country.

So it is, alas, for the birdwatcher, for whom, with its wonderful scenery and vast areas of unspoilt country-side, Scotland is an immensely rewarding country. Its variety of habitats and its long list of resident and migrant birds, astonishing in so comparatively small an area, have long attracted ornithologists from Britain and all over the world.

There are about 160 breeding species in Scotland, of which about 15 breed only in this country in the British Isles. These include the Crested Tit, commonly seen in the Shy Rabbie area, and the Osprey, whose re-establishment as a breeding species in Scotland makes a fascinating story. Scottish Grosbeak, Green-shank, Dotterel, Capercaillie and Ptarmigan are fairly widespread breeding species north of the Highland line and virtually nowhere else in Britain. Several species of duck, geese and divers, are also unique to Scotland or much commoner in the Highlands than anywhere else. The Snowy Owl has also recently re-established as a breeding species in Fife, Scotland.

Scotland offers endless interest. This brochure does not seek to replace the standard works on the birds of Scotland, but is intended only to indicate what the birdwatcher may reasonably expect to see, and where to look for it. Further information will gladly be given by the organisations listed on the back cover.
DIVERS

The Great Northern is a winter visitor but odd birds remain well into spring and may be seen all along the west coast. Black-throated gannets breed on the larger stretches of water in remote areas of the Highlands and islands; the smaller Red-throated gannets breed on lochs and hills but are not widespread but are found in the Western Highlands.

SEA BIRDS

The large numbers of sea-birds nesting along the Scottish coast include Storm Petrel, Leach's Petrel and Manx Shearwater: these nest only on remote and often inaccessible islands, but Shearwaters may be seen, however, from boats in the firths of Forth and Clyde, and Petrels are not infrequently encountered in western and northern waters. Fulmars have expanded their range considerably in recent years and not only nest on all the well-known colonies but in many other places on the west and east coasts.

Gannets are confined as breeding birds to a series of colonies around Scotland, the largest being St. Kilda, all visible from the shore, the Bass Rock, Sula Sgiar and Treshnish. There are smaller outposts on the Scour Rocks, Wightwater, and in the Shetlands. But they may be seen from the shore around the coast.

Cormorants are rather restricted in their breeding stations but are nonetheless very familiar in Scotland; the smaller Shag is even more numerous, nesting in large numbers all along suitable rocky coasts. Breeding Auks include Guillemot, Razorbill and Puffin: they nest in vast numbers on many well-known sea-bird islands and are not uncommon elsewhere, breeding on mainland cliffs such as St. Abb's Head and Dunnottar Head. The Black Guillemot or Tystie establishes large colonies but is very familiar on western and northern coasts.

GESEES, DUCKS, SWANS

Wild Geese are almost entirely winter visitors, although Grey Lag geese breed on the island of Choros, Outer Hebrides. Pinkfoot geese number over 1 million, as do Grey Lag: both species are present in large numbers. Green-land Whitefronts are mainly concentrated in the Solway and a few other areas such as Kintyre. Barnacle geese are wader-breeders but are found in the Western Isles and the Solway.

Of the wading species, Bewick's is an unpredictable species in winter, but the Whooper is both abundant and widespread at that time of year. Almost all the duck that Britain can be seen in Scotland in winter, including Long-tailed Duck and Velvet Scoter. Breeding species include Eider, very common all around the coast, Goosander, confined to freshwater lochs and Red-breasted Merganser, which occurs both on salt and fresh water.

GULLS AND TERNs

The five common species of gull may be encountered almost anywhere; Kittiwakes are present, in vast numbers, in most of the well-known sea-bird colonies and are commonly encountered around much of the coast.

Scotland is probably the only part of Britain where Glencous and Iceland Gulls can be safely regarded as regular winter visitors. Terns also breed in large numbers; among the most famous terneries are the R.B.P.B. for the islands of the Hebrides. In addition, many terneries exist on the mainland. Common, Arctic, Little and Sandwich Terns nest in many areas, while Roseate Terns are abundant on the Firth islands.

In Orkney and Shetland, and on parts of the extreme north-east coast, the plarticulous Shags breed. The Arctic Skua is very numerous, and numbers of the Great Skua—the Bonxie—are on the increase. Both species can be seen from the shore at John o' Groats.

GAME BIRDS

The sporting tradition in Scotland has done much to ensure a large population of game birds. The Red Grouse, a well-differentiated race, is very numerous on the heather moors; less numerous but by no means uncommon is the handsome Black Grouse, a bird which prefer to live in the moors, especially with cover near by.

In the old pine forests of the Highlands lives the mighty Capercaille, one of the most spectacular of the birds for which Scotland is famous. The Ptarmigan is a bird of the high mountains, rarely venturing below 3,000 ft, except in winter. Although not a game bird, the Corncrake should be mentioned: not so common as it once was, it can still be found in parts of Western Scotland and in the Western Highlands. It is, of course, a bird more often heard than seen.

PASSEERINE BIRDS

Passerine birds of many species abound in Scotland, and one Woodpecker, the Great Spotted, is tolerably common: the Green Woodpecker is by no means uncommon. Specialities include the Dipper, common throughout the country where there are suitable streams, two northern Grouse—the Raven and the Hoodie—and the Crested Tit, which is restricted to the pine forests of the Spey Valley, where it is quite common.

Siskins nest in many parts of the Highlands, and Twite breed in a few areas of the west and north. The Snow Bunting, fairly common as a winter visitor, also nests in a few areas in high mountainous country. Passerine birds commonly seen include: Coal Tit, Tree Creeper, Ring Ouzel, Wheatear, Whinchat, Stonechat, Redstart, Wood Warbler, Goldcrest, Grey Wagtail and Redpoll.

BIRDS OF PREY

Scotland has long been famous for the diversity of its birds of prey population. First on the list is, of course, the Golden Eagle, the bird all tourists hope to see but the one which, in fact, few see them do! It is not common; its eyrie sites are largely confined to the wilder areas of the Highlands—but as often not as it may be seen from any road which winds through typical eagle country.

Buzzards (often mistaken for Golden Eagles) and Kestrels are the commonest birds of prey in Scotland, but in mountain country, and on a few sea cliffs, the magnificent Peregrine, although scarce, may still be seen easily enough, and on moorland the tiny Martin and the Hen Harrier are not uncommon. In suitably wooded areas, the Sparrowhawk still holds its own. Challenging the Golden Eagle for pride of place among Scotland's predators is the Osprey, now re-established as a breeding bird after an absence of nearly half a century. A visit to the R.S.P.B. Reserve at Loch Garten in Inverness-shire, where this bird can be seen at close quarters, is a must for all bird-lovers.

Excluding a very rare but surprisingly regular winter visitor, the Snowy Owl, five species of owl occur in Scotland. The Little Owl is confined to very few pairs in the Borders and, although widespread, the Barn Owl cannot be called a common bird. The Tawny Owl, however, is very numerous, and where there is sufficiently thick cover the Long-eared Owl is by no means uncommon. The Short-eared Owl is the species most rarely seen, as it hunts over moorlands and rough pastures by day.

WADERS

A great many species of waders occur in winter or as passage migrants, and several are known as breeding birds, including two most familiar and ubiquitous species, the Curlew and the Oystercatcher.

Snipe, Redshank, Dunlin, Ringed Plover and Golden Plover skive off from their nesting areas. The beautiful Greenshank nests in some areas, notably in the Cairngorms, and in recent years the Wood Sandpiper has nested in very small numbers in one or two localities.

Another very rare bird, the Dotterel, nests on hight barren mountain tops. Due to tourist pressure, it has largely retreated from the4 top. The Golden Plover haunts, but survives in some numbers in remoter areas. The Whimbrel has large numbers in Shetland, where also the Red-necked Phalarope occurs locally: the latter is also breeds in a few spots in the Outer Hebrides.

Almost every rocky burn and river, or stony loch-shore, has its complement of Common Sandpipers. Thick waders abound in parts of Scotland and here the Woodcock may be seen, especially around dusk when "roding."
AUCHTERHOUSE,
WITH LINDIE, FOWLES EASTER, AND TEALING.

The parish of Auchterhouse lies in the south-west corner of the county, about 7 miles W.S.W. from Dundee, its post town, and on the north of the Sidlaw hills, bounded on the east by Tealing, on the southeast by Auchterhouse, on the west by Letham and Methven, and on the north by Auchterhouse, Letham, and Methven. The parish is bounded by the railway on the north and north-west by Letham and Fowles, on the north-west by Newtyle, and on the west and south-west by Letham and Fowles, on the south-east by Auchterhouse, on the south by Auchterhouse, Letham, and Methven, and on the west by Letham and Methven. The parish is about 13 miles long and 6 miles wide, and contains 13,472 acres, of which 13,472 are cultivated, and 200 are waste or water. The soil is a loam, and the land is well watered. The parish is divided into three parts, viz., Auchterhouse, Letham, and Methven.

The village of Auchterhouse is about 1 mile S.W. of Auchterhouse, and is a straggling village, with a post office and a public house. The parish church is about 1 mile S.W. of Auchterhouse, and is a large and handsome building, with a spire and a tower. The village of Letham is about 2 miles N.E. of Auchterhouse, and is a pleasant village, with a fine church and a public house. The parish church is about 1 mile N.E. of Letham, and is a large and handsome building, with a spire and a tower. The village of Methven is about 2 miles S.E. of Auchterhouse, and is a small village, with a public house.

The soil of the parish is a loam, and the land is well watered. The parish is divided into three parts, viz., Auchterhouse, Letham, and Methven.

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of the peace court is held on the first Wednesday in every month, and a sheriff court on the third Tuesday of January, March, May, July, September and November; the two last-mentioned courts are for adjudicating small civil disputes.

In ancient times the Abbey of Cullers existed here; and in 1519 when Brechin was constituted an episcopal see by David I. It is supposed that the site of this establishment was selected for that purpose with the intention of erecting an independent church. The cathedral of St. Simon, which now forms the parish church, stands upon a raised site, having undergone a precipitate ravine, which separated the burying grounds from Brechin Castle; it was originally a structure of the thirteenth century, but its architectural symmetry has been materially injured by the injudicious taste displayed in modern repairs. The length is 110 feet and the breadth 66 feet; the steeple is a square erection, 70 feet in height, surmounted by an hexagonal spire of 20 feet. The cathedral of Brechin was one of the few places of worship in which the service of the liturgy is performed without interruption. In 1637 the cathedral stands is 35 feet to the north front, towards the south. It is built of freestone, 85 feet in height to the cornice, and 35 feet more to the pinnacle of a modern spire. It has several windows—in particular, at the top, facing the cardinal points. The entrance to the tower is by a door 2 feet from the ground, on the outside; the windows are eddied by the Commissioners of Woods and Forests. The south front is decorated with numerous statues or figures in an antique style of carving and a rude representation of the crucifixion, and contains interesting ornaments in the door. The diameter of the tower at the bottom is 16 feet. Formerly there were two small bells in it, which were removed to the large steeple, where they now hang. Brechin possesses a racecourse in the town, and only separated from the corse by the canal before mentioned, stands Brechin castle, an ancient residence of the Earls of Wemyss, now represented by the Earl of Dalhousie; it is built on a precipitous rock overhanging the strait, and was the scene of a siege of twenty days in 1560 from the English army under Edward IV., but Sir Thomas Main, its commander, refused to surrender. The south front, facing the river, consists of some remains of the original structure, with some more recent improvements, including a handsome square tower; the west front is formed with regularity, in the style of the seventeenth century. It has been repaired with taste and accuracy, with several mantels exposures, and two monumental appendages, being situated in a deep park of about 1,200 acres in extent. Access, 5,100; population, 1,652.

POST OFFICE, BREC\N. Letters—Postmaster. —Letters are carried from the north and south of the town, and are despatched therefrom at 8 a.m. and 2 p.m., and delivered at the post-office at 10 a.m. and 4 p.m.

Academically, the assistant master is Mr. Alexander Black, and the assistant is Mr. J. C. Smith. The master is Mr. A. S. Black, and the assistant is Mr. J. C. Smith.


CARNBROOKE BANK. (Branch), 22 swan st.; head office, Glasgow—draws on own branch, London—J. Black, agent; John Graham, assistant.

CITY BANK. (Branch), 14 St. David st.; head office, London—Wm. M. Valentine, agent; The Gardiner, agent.

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DUNSTAN BANK. (Branch), 8 Swan st.; head office, Glasgow—draws on own branch, London—J. Black, agent; John Graham, assistant.

EAST MILL. (Branch), 32 swan st.; head office, Edinburgh—draws on own branch, London—J. Black, agent; John Graham, assistant.

FLETCHER BANK. (Branch), 14 St. David st.; head office, London—Wm. M. Valentine, agent; The Gardiner, agent.

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WIGMORE BANK. (Branch), 14 St. David st.; head office, London—Wm. M. Valentine, agent; The Gardiner, agent.

WITNESSES, TRAVELLERS, AND CRESCENT BANK. (Branch), 14 St. David st.; head office, London—Wm. M. Valentine, agent; The Gardiner, agent.
FORFARSHIRE

INSURANCE OFFICES, &c., continued.
Scottish Employers' Liability & Accident Insurance Co. of William Whiston, 48 St. David st.
Scottish Equitable (life)—Shiell & Don, 14 St. David st.
Scottish Legal (life)—William Burnett, 33 City st.
Scottish Metropolitan (end)—New Morris, Andrew hill
Scottish Plate Glass—William Watson Watt, 5 Union st.
Scottish Provident—James Guthrie, Royal Bank, Swan st.
Scottish Provincial—D. & J. Will & Phillips
5 Panmure st.
Scottish Temperance—James D. Winten, 6 High st.
Scottish Union & National—Shiell & Don, 14 St. David st.
Scottish Widows' Fund—Charles William Anderson, St. Mary st.
SEEDS & SEEDSMEN—William Watson Watt, 5 Union st.
SOUTHERN, W. W. Watt, 5 Union st.
STANDARD—W. M. Vallentine, 5 Clerk st. (near—John Don, 14 St. David st.
United Fire—J—J. Jack, 19 South st.
West of England—William Watson Watt, 5 Union st.
YORKSHIRE—William Whiston, 46 St. David st.

IRONMONGERS.
Duncan William 14 High st at Ferguson & Hood (wholesale and retail, 26 Swan st)
Napier Williams, 21 High st
Salmon James, 104 High st

JOINERS.
Marked thus: & are also Builders
Black William & John Clerk at Bruce Walter, J. Buchan, Bank st.
Bruce Walter, J. Buchan, Bank st.
Conants James, 44 Union st
Douglas James, Damacre rd
James James, Alloa
Ogilvie George, 50 Montrose st
Rodd Joseph, 60 Market st
Wait William & Son, 5 Union st
Wilson J. L. City rd

LAND & BUILDING SOCIETIES.
See Property & Investment Societies, Linen and Woollen Drapers.

LINEN AND WOOLEN DRAPERS.
Blind Peter M, 39 St. David st.
Brechin Equitable Cooperative Society, 5 St. David st.
Brechin Free Medical Co., 16 St. David st.
Brechin United Co-operative Society, Limited, 49 High st.
Calder George, 6 Bridge st
Christie James, 3 High st
Dabers David, 92 High st
Duncan F. & W. st Only st
Gaucy John, 14 Market st
Hendry & Gilmour, 8 St. David st
Hillcock Elizabeth, 43 Montrose st
Kennedy Isabella, 109 High st
Lawson David, 70 Market st
McKenna Alexander, 14 High st
Mitchell Brothers, 9 Swan st
Morgan Robert, 13 High st
Scott James, 4 Bridge st
Scott James, 44 Market st
Whyte W. & Son, St. David st

LINEN MANUFACTURERS.
Dabers David & Winney, 92 High st
Doyle D. & R. Den Burn Works, Montrose st
Lamb & Scott (all home or foreign orders entrusted to our care receive special and prompt attention), Coldham Works, Southesk st
Smart J. & J. 35 River st

MANURE MERCHANTS.
Breachin Agricultural & Trading Co. Park rd—Copper & Cooper, managers

MAGAZINES.
Duncan James, Montrose st.
King John, St. Andrew st
Loch J. James, Paper
Paterson Clackie, Latch rd

METALLIC KEO AND CASK MANUFACTURERS.
Ferguson & Hood (patentees and manufacturers of metallic kags, casks, cisterns, buckets, &c., for oil, vinegar, tar, turpentine, paint, colours, printing inks, &c., City Road Works, Brechin

MILLERS.
Cowan Robert N., Balbirnie Mill
Low William, Balhaid Mill
Robertson Alexander & David, Forfar

MILLINERS.
See Dressmakers.

MUSIC SELLERS.
See Bookellers & Stationers.

NEWSPAPERS.
Brechin Advertiser (Tuesday)—David M. Edwards, publisher, Swan st

NURSERYMEN, SEEDSMEN, AND FLORISTS.
Dickson & Terralls, 8 St. David st—David Dickson
Henderson & Son, Den Nursery, Trinity rd
Joy William, St. Andrew st
Young James, Swan st

OIL MERCHANTS.
Ferguson & Hood, 26 Swan st

PAINTERS—HOUSE, &c.
Bruce William, 43 Market st
Ritchie David, Swan st
Millar James, 26 Market st
Williams David F. P. Clerk st

PAPER MANUFACTURERS.
Guthrie, Craig, Peter & Co. Brechin Paper Mills

PHOTOGRAPHERS.
Gillies James, Pack rd
Birdens J. Southesk st

PLASTERERS.
Farquharson George, 5 Channon wynd
Prasad, Clerk st. 4 Damacre rd
Gibson James, Clerk st

PLUMBERS, GAS FITTERS, &c.
Cuthbert George, Union st
Douglas William, 43 High st
Ewan James & Sons, 27 Market st
Middleton C. & Sons, 26 Market st

POTATO MERCHANTS.
Allison Donald, Damacre rd
Colb William, City rd
Farrer David, City rd
Lairg James and pork, 141 Montrose street

PRINTERS—LETTERPRESS.
Alexander William & David, 41 High st
Black & Johnston (engravers, 60 High st
Ewan David H. Swan st

PROPERTY AND INVESTMENT SOCIETIES.
Calderonian Property & Investment Society (Dundee, 28 St. David st.—Wm. Wilson, manager
Land Security Co. 28 St. David st—William Wilson, agent

SCHOOL BODIES.
Board Schools—
Bank Street—James M. Bule, master; William Lyle, assistant master; Margaret Carnegie, mistresses; Jane Robertson, assistant mistresses.
Brechin.—Alexander G. Robertson, master; Samuel Chalmers, assistant master; Jane Robertson, assistant mistress.
Catherine.—William L. Machin, master; Agnes Millar, assistant master; Mary Millar, assistant mistress.
High School, St. Andrew's Place—A. B. McLaren Murray, head master; R. Young, John Buchanan, Agnes Mitchell, Mary Glen, Emily Sumer, and Mary Ewing, assistants; Andrew Robertson, classical master; Jane & Jessie Houston, modern languages and music teachers.
Little Brechin.—Robert Cameron, master; Thomas' Schools, Andyhill.—E. Adamson Scott, M.A. master; Henry M. Rodger, Christina Grinna, Margaret Cables, J. N. Morrison, and W. G. Douglass, mistresses.
Union street (half time)—James D. Ross master; Mary Anderson, mistresses.
Richmond—James Snell & Graham, 26 Union st.

TRADE CARD INDEX.

DEALERS.

BRECHIN.

BRYE MASTERS.
See Stone Merchants, &c.

RAG DEALERS.
Low David, Damacre rd
Whitham David, 28 St. David st

REFRESHMENT ROOMS.
Brown Alexander, 78 High st
Bruce J. A. M., 25 St. David st
Campbell David, 21 St. David st
Hutton David, 7 Union st
Steele James R. 46 High st

REGISTRY OFFICES FOR SERVANTS.
Glyndwr John, 14 Market st
M'Lennan Mary Ann—Mrs. John's gl
McOnie Robert, 27 Market st

ROPE MANUFACTURER.
Finlay Robert, Park road

SADDLERS AND HARNES BAKERS.
Braid Henry & Co. 8 Panmure st
Caldhauer Hugh, 7 Market st
McQueen Alexander, 19 St. David st
Morrison Andrew, 24 St. David st

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SEWING MACHINE MAKERS AND DEALERS.
Gill Alexander, 49 St. David st
Ferguson & Hood, Swan st
Simper Manufacturing Co. 69 High st—See advertisement

SHOEPRENEERS AND DEALERS IN SUNDRIES.
(See also Grocers, &c.)
Anderson Robert, 12 Market st
Anderson William, Trinity village
Ballantine Isabella, 9 Church st
Barrie William, 7 Bridge st
Callander Robert, 108 High st
Dennie Margaret Y. 47 High st
Dunne James, 33 Montrose st
Dunst Peter, 2 St. Mary st
Forsch Elizabeth E. 37 Montrose st
Fryer David, 4 Union st
Gilbert James, 54 Union st
Hunter William, 133 Montrose st
Johnson Archibald, 3 Montrose st
Keer George, 43 Montrose st
Kinnear Mary G. 27 Market st
Laidlaw James, 141 Montrose st
McDowell David, 6 River st
Ogilvie Grant, 13 Market st
Parker William, 6 Montrose st
Patterson Marjory, 45 Union st
Robinson Mary, Castle st
Smith David, River st
Taylor Mary A. 3 Southesk st
Taylor Neatly M. 58 Market st
Thomson James, Trinity rd
Tooth William, 11 City rd
Wallace Elizabeth, Church st

SLATER'S
BROUGHTY-FERRY, WITH THE PARISHES OF MONIFIETH AND MURGUS, AND THE HAMLETS OF RANBEEK AND NEWBIRGS.

Broughty-Ferry is a considerable modern town and police, nearly equidistant from Forfar and Dundee, and on the Dundee and Arbroath railroad. The place takes its name from the old ruined castle of Broughty or Brough Tay (the division of the Tay, situated in the north-eastern extremity, near the sea). It is in ruins, but has improved very considerably during the last five years, having become the place of residence of many of the principal businessmen and merchants of Dundee, who have built houses and cottages on the hill-side. Branches of the Royal Bank of Scotland and the North of Scotland Bank, Limited, and a Savings Bank are established here. The town is governed by commissioners of police and police magistrates, who are countenanced by provisions of the Police Act of 1862. At one time the Earl Ferry comprised only a few fishermen's huts, built along the beach; the population is now considerable, while from various parts of the county visit it during the summer months to enjoy its pleasant scenery, pure air, and for the sake of its excellent fishing accommodation. There are no public works here, the inhabitants being chiefly employed in fisheries, trade, and private. The new pier and harbour was constructed in 1871, at a cost of about £2,900, projecting in the river about 300 feet long, with a depth of 20 feet. At the outer end of the pier is a platform of stone and slip, supported on piles secured and braced together by piles and diagonal timbers, forming an area running east-ward in the direction of the North British railway pier, which gives it a semi-clauch-like appearance. There is boating for four or five small vessels. The slip is of a uniform breadth of 30 feet, running through the pier down to low water, partly under the platform as a gentle declension; this arrangement will accommodate vessels at low water, and the landing and embarking of passengers from small vessels at any state of the tide. The new pier is eight feet thick, and is built of granite blocks, and trellis work of iron. At the north end of the pier is a building for the use of police, and for the protection of the pier from any accident.
The village of Cellardyke (or Nether Kilkenny) is an extensive fishing village in the parish, and the port of Anstruther, before described, forming part of the burgh of Kilkenny. The population of the entire parish in 1891 was 2,500. The number being included in the parliamentary burgh of Anstruther.

The village of Cellardyke (or Nether Kilkenny) is an extensive fishing village in the parish, and the port of Anstruther, before described, forming part of the burgh of Kilkenny. The population of the entire parish in 1891 was 2,500. The number being included in the parliamentary burgh of Anstruther.

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ANSTRUTHER

- Hay David, 36 Cunnie st
- Henderson William, Kilncre
- Ian Alexander, Cellardyke
- L. McArchie Wood, & Co., Anstruther
- Leslie William, Cellardyke
- Lovell William, 12 Roder st, Cellardyke
- Marr Alexander (and general merchant), Cellardyke
- Murdoch George, Colin dyce
- Murray Alexander C., Cellardyke
- Neil Wilson, East Green st
- Parke Alexander, 36 Cunnie st
- Peebles Ann, 8 Roder st, Cellardyke
- Pat David, 26 Roder st, Cellardyke
- Robertson Charles, 16 Cunnie st
- Sheriff Murray (and general merchant), Cellardyke
- Shinnor James, Cellardyke
- Smith David, High st
- Stewart Daniel & Co., 36 Cunnie st
- Taylor Alexander (a grain dealer), West Anstruther
- Walker William, Cellardyke
- Watson Robert & Co., 16 general merchants Cellardyke, Fife
- White Jenny, West Anstruther Wood, 47 High st

BLIND DEPARTMENT

Crawford, William, 15 High st
Court, John, Cellardyke

HOTELS AND INS

Commercial, William Kirkaldy, High st
Murray Arms, Donald Murray, 12 Cunnie st
Royal Hotel and posting, William Donaldson, proprietor, Rodger st, Anstruther
Salutation, Margaret Forrester, 25 High st

INSURANCE OFFICES AND AGENTS

Caledonian—George Sharp, Cellardyke
- William Russell, Cellardyke, Shire st
- John C., Anstruther
- Scotland—George Dickson, 7 Roder st
- Scottish—Alexander Murr, Cellardyke
- Imperial (life)—George Dickson, 7 Roder st
- Life Assurance—George Dickson, 7 Roder st & Peter Thomson, Cellardyke
- Life Association of Scotland—David Cook, Anstruther, & John Garnett, Cellardyke
- Lecture Assurance Corporation—George Dickson, 7 Roder st & Peter Thomson, Cellardyke
- Mutual—B. B. B. Bayne, 7 Roder st

FISH CURERS AND COOPERS

Bonhonn John & Son, Crail road, Anstruther
- Brown Thomas, & Son, Anstruther & Lowestoft
- Cormack Thomas, Cellardyke
- Cunningham James & Sons (beater, cooking and other cut wood for fish curers), Elie street, Leith—Established 1830
- Durie John T, Anstruther
- Donaldson Robert, Anstruther
- Henshaw John A. Joseph, 51 shore st
- Kinloch, Cellardyke
- McInroy, Cellardyke
- Meikle Andrew, Cellardyke
- Melville Robert, Cellardyke
- Murray Robert (and general merchant), Cellardyke
- Thomson David (fish curer and cooper), West Anstruther, Cellardyke
- Wilmshurst Robert, Anstruther

FLESHERS

Addison William, Cellardyke
- Cormack Thomas, 1 East Green
- Dinsmore Peter & Son, Shire st
- Doucal & Co., 11 shore st
- Henderson George, 17 Toller st, Cellardyke
- Henderson William, 26 High st
- Scott Alexander, Cellardyke

FRUITSELLERS AND GREENGROCERS

Anderson William L, Anstruther
- Scott John Fraser, Shire st
- Taylor Alexander, West Anstruther
- Wood Andrew, 47 High st

GROCERS

Marked thus * are also Spirit Dealers
- Addie Munro M, Rodger st
- Bell James, West Anstruther
- Bisset Alexander, 17 st
- Bruce John, Cellardyke
- Bruce Margaret, Cellardyke
- Bruce John, Roder st
- Buchan John, Cellardyke
- Calliny Thomas, Cellardyke
- Clark, George, 36 Cunnie st
- Donald James, Anstruther
- Donald John, Cellardyke
- Hay Alexander, 25 High st

IRON MERCHANTS

Butlers John, Cellardyke
- Dalzell Thomas A. 15 High st
- Harrow David, East green st
- Purvis George, East green
- Watson Robert & Co., Cellardyke—See adv

JOINTED

Rattray Robert, West Anstruther
- Brownie John, Cellardyke
- Henshaw William, East Green st
- Henshaw William, Kilncre

LINEN AND WOOLEN DRAPERS

Burness Philib, 44 Shore st
- Cunningham Robert & John, 31 shore st
- Dunlop John, Cellardyke
- Duncan James M., High st
- Forrester William, Cellardyke
- Marr John, 19 High st
- Thomas Peter, Cellardyke
- Smith & Murray, Cellardyke

NET MANUFACTURERS

Duncan & Black, (fishing nets), Cellardyke
- Taylor Alexander (fishing nets), Cellardyke
- Smith James, Cellardyke

OIL MANUFACTURERS

Bonhomin John & Son (cod liver oil), Cellardyke
- Cormack Thomas (cod liver oil), Cellardyke
- Fordyce Alexander, Cellardyke
- Houghton George, East green

PAINTERS AND PAPER HANGERS

Brown George, Cellardyke
- Cameron James, Cellardyke
- Campbeltie, (and glazier), Lister James, 23 Shore st
- Smith James, 15 High st

PLUMBERS AND GASFITTERS

Dunbar Thomas, 4 High st
- Hutton David, East Green
- Purvis George, East Green

POPE AND SAIL MAKERS

Mitchell David, Rodger st
- Sharp & Murray, Cellardyke
- Watson Robert & Co., Cellardyke—See adv

SCHOOLS

Waid Academy, Anstruther—
- Head Master—John Mason, M.A.
- Classics—The head master & P. Harrower, M.A.
- English—The head master, Robert Jackson, M.A., B.Ace, and P. Harrower
- French and Italian—The head master and Miss Johns
- Food and Instrumental Music—Charles E. Winifride
- Drawing and Needlework—Miss John
- Drill Master—Sargent Bryen
- Geology, High st
- Geography and Margaret latin, Anstruther
- Art

PUBLIC SCHOOLS—
- East Anstruther—Wm. Arbuckle, master
- Anstruther (infants')—D Hay, master
- East Anstruther—William P. Wilson, Cellardyke
- Cellardyke—John Barbour, master
- Art
- White, mistress; G. C. Pinks, Infant master
- Kilncre—Robert Forsyth, master; Helen Girvan, mistress

SEEDSMEN

Colley Thomas, Shire st
- Hay Alexander, High st
- Hay David, Cellardyke
- Linn William, Cellardyke
- Scott John Fraser, Shire st
- Wilson James & Floris, 96 Market street, St. Andrews; nursery, Greenoak place, St. Andrews, Shire st

SHIP CHANDLERS

Cunningham Thomas, Harbour-head
- Marr Alexander, Cellardyke
- Wilson Andrew, West Anstruther
- Watson Robert & Co. Cellardyke—See adv

SLAVERS

Gilmour Thomas (and plasterer), West Anstruther
- Wilson Robert, Tolbooth, Cellardyke
WATERPROOF OIL CLOTHING & FISHING MATERIAL MANUFACTURERS.

Martin & Co., manufacturers of waterproof oil clothing and fishing material, Collardyke, Collardyke, Dumbarton, and Paisley.

J. T. James, manufacturer of fishing nets and all kinds of fishing material, Paisley.

John & Co. (general merchants and manufacturers of waterproof oil clothing, herring nets, and fishing gear of all kinds, Collardyke, Paisley.

Watson Robert & Co. (general merchants and manufacturers of waterproof oil clothing, herring nets, and fishing material, Collardyke, Paisley.

Martin & Co., manufacturers of fishing material, Paisley.

J. T. James, manufacturer of fishing material, Paisley.

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J. T. James, manufacturer of fishing material, Paisley.
CARNOUSTIE:

CARNOUSTIE is a thriving village, post town and station on the Dundee and Arbroath joint railway, in the parish of Barrow. It is a pleasant sea bathing place, situated on the east coast of the North Sea. It is 8 miles 3,000 yards from Dundee, and 10 miles from Arbroath, and is much resorted to in the summer months by visitors from Dundee and other parts of Scotland. Since the introduction of a supply of pure water, and a thorough system of drainage, it is considered one of the best sea bathing resorts on the east coast.

On the extensive links or downs in the neighbourhood of the village is a battery, where the naval exercises are made with heavy guns. The village is well supplied with gas. There are several handsome villas in and near the village, and many respectable lodging houses; also the large iron manufactury of Messrs. Solunton & Sons, who employ upwards of 500 hands, on an extensive vitrual works, belonging to Masters, Yeamand & Co. of Glasgow; a Savings Bank, and branches of the North of Scotland Bank, Limited, and the Bank of Scotland.

The place of worship is a church of the Establishment and others for the Free, United Presbyterian, Original Seceders, and an Episcopal church. There are also public schools. Population in 1851, 3,151.

POST OFFICE, Carnoustie, John Lowson, Post Master.

ACADEMIES.

Agriculture.

Agents, Marked * are Commission Agents.


*Lowson John, (for Stevenson Bros. dyers, Dundee), Dundee.

*McGregor (for T. P. Campbell, dyers, Perth), Lochhead House, Dundee.

*McKinnon A. J., Newcomen, Carnoustie.

Nicol William, (for W. & A. Gilbery's dyers), Dundee.

Reid Alexander (for Anchor Line of steamers and for P. & P. Campbell, Perkin's, Carnoustie.

Strachan David, Sea grove, Newcomen for the Royal Association for the Promotion of Fine Arts, Church of Perth.

APARTMENTS.

Anderson Eliza, Church St., Barrow Mary, Ireland;

Black Eilizabeth, Dundee;

Cochrane Mrs. H. V. Newton of Panbride;

Delves Mrs. Ireland, 2, Dundee;

Duncan Alexander, East End A. Edward Ramsay, Ireland;

Edwards James, Seafield House, Dundee;

Gibson Elizabeth, Tay Street;

Hamilton MacKay, The Beach;

Hedley Helen, Oak Villa, Newton of Panbride;

Lowther Mrs. Ireland, Carnoustie;

Mitchell Alexander, Newton of Panbride;

Cochrane Mrs., Cow Cottages, Dundee;

Jardine William, Mores Bank;

Nicoll Robert, Beach Cottage;

Ogilvie Mrs., The House;

Order the Messes, Cochrane Cottage;

Purvis Mrs., Dundee.

BOOKSELLERS, STATIONERS, AND CONFECTIONERS.

Hogg Mary, Dundee at Lawrence John, Dublin;

Reid Alexander (& printer), Dundee at

BOOT AND SHOE MAKERS.

Cameron James, existent, Duncans, James, Point St. Edward Wilson, Harry;

Fyfe David, Craigtoun, Monikie;

Hill James, Newbiggin, Monikie;

Low James, Newbiggin, Monikie;

McKean James, Loup Hill, Monikie;

Muir John, Newbiggin, Monikie;

Nicholl William, Dundee at

Nicol William, Dundee at

Oswald James, Dundee at

Ramsay James, Dundee at

Saltoun William, Church St., Monikie;

Stuart John (wholesale, and currier, Carnoustie.

BUILDERS.

See Stationers, etc.

BLACKSMITHS.

Anderson David, Scryne;

Ewan David, Barry Gould Lewis, Arbroath;

Gray Alexander, Cross Hill;

Hendry Andrew, Pitkethly, Monikie;

Moffat John, East Path, Carnoustie;

Morris James, School House, Carnoustie;

Scott George, Leuchtt, Monikie;

Shielie James, Midfords, Carnoustie;

Strachan David, Newton of Panbride;

Terrington George, Kingsbarn;

BRENNERS.

Dickson John F. Panbride

MOON is a parish seven miles in length by five in breadth, parishes of Barrow and Monikie, 9 miles x. 3,400 yards from Dundee, 8 miles x. 2,000 yards from Arbroath (its post town). There is a station here on the Dundee and Forfar section of the Edinburgh Railway. The land is well cultivated, much of the produce being required for the navy aboard the parish, church, on the Hill of Downie, stands a monument 23 feet in height, which was erected in 1839, during the lifetime of the late Lord Panmure, by his tenantry as a testimonial for the niece they had received at his hands. Population of the parish in 1851, 1,412.

Monikie is a parish which joins Barry and Monikie on the west, Carnousty on the north, Arbroath on the northeast, and a detached part of St. Vigeans on the south-east; it runs about 45 miles north from the ocean, and in width is about 2 miles, embracing the town of Monikie and Newton of Panbride, the last being now considered a part of Monikie. A mile further to the east are the Panbride Bleachers, and the Panmure, with its extensive enclosures and greens. The parish is watered by a stream that runs through a valley called Flett's Den, over which is thrown a bridge of iron, the road from Dundee to Arbroath. The inhabitants are principally engaged in fishing and agricultural pursuits. The coast is flat and rocky, but has two open harbours at the fishing villages of John and Islay, and the Arbroath and Barry Railway. Pupillage of the parish in 1851, 1,208.

GOVERNMENT.

Stuart James, Post Office, Carnoustie;

Stuart James, Post Office, Carnoustie.

ACADEMIES.

See Schools.

AGENTS.

Marked * are Commission Agents.


*Lowson John, (for Stevenson Bros. dyers, Dundee), Dundee.

*Mitchell Alexander, Newton of Panbride;

*Nicol William, Dundee at

*Straochan David, Sea grove, Newcomen for the Royal Association for the Promotion of Fine Arts, Church of Perth.

ARCHITECT.

Fraser David (in the Dalhousie estate), East Path street.

BANKS.

BANK OF SCOTLAND (Branch), Carnoustie; head office, Edinburgh—draws on branch office, Leith—David A. M'Conaghy, agent; William Menzies, cashier.


SALVATION BANK (Barry & Panbride), Kinleith street—John Lowson, treasurer.

BLACKSMITHS.

Anderson David, Scryne;

Ewan David, Barry Gould Lewis, Arbroath;

Gray Alexander, Cross Hill;

Hendry Andrew, Pitkethly, Monikie;

Moffat John, East Path, Carnoustie;

Morris James, School House, Carnoustie;

Scott George, Leuchtt, Monikie;

Shielie James, Midfords, Carnoustie;

Strachan David, Newton of Panbride;

Terrington George, Kingsbarn.
## DIRECTORY

### FORFARSHIRE

#### SADDLE AND HARNESS MAKER
- Sanderson David, Newbigging, Monikie

#### SCHOOLS
- Form Schools:
  - Carnoustie: James Nicholson, master
  - Barry: Christopher Armstrong, master
  - Dumfries: Samuel Low, master
  - Monkton: Alexander Cameron, master
  - Midrum: Miss Hiles, mistress

#### SEED CRUSHERS AND OIL REFINERS
- Mitchell James & Co. Affleck Seed Crushing Works, Monikie station; also, Calcutta buildings, Commercial st., Dundee

#### SHOPKEEPERS AND DEALERS IN SUNDRIES
- Black Ann, Brown st, Hudson James, Midrum
- Lewis William, Newbigging, Monikie
- Macca Stew, Church st, Black Janet, Barry
- Naik William, Monikie
- Nicol James, Barry rd
- Dey Margate, Dundee st, Scott George, East Perth
- Scott John, Barry
- Company George, Monikie
- Sounier-James, Barry rd
- Graymill David, shop, Monikie
- Tait Eilebuds, Monikie
- Wandel Margaret, Ireland st

#### SLATTERS
- Brand William, Craigton, Monikie
- Hogh Alexander, East Sea rd

#### SMITHS
- See Blacksmiths.

#### SPIRIT DEALERS & PUBLIC HOUSES
- Beaton Isabella, Dundee st, Clark William (Gold Arms), Kinloch Rd.
- Cowan William (Foreshore Arms), Dunne st, Henderson Alexander, Woodhill, Barry (the Lamond James (Commercial)), Carnoustie
- Robert John (Gold Inn), Carnoustie

#### STONE MERCHANTS AND QUARRY OWNERS
- Nathan, Farrow & Smith, Pitfleish Quarry, Monikie
- Morrison Peter, Broomwell Quarry, Monikie

#### STONEMEN AND BUILDERS
- Black James, Barry rd
- Black John, Guthrie st, Robertson & Black, Carnoustie
- Wilson Alex. Y. H. (measurment), Dundee st

#### SURGEONS
- Dickson G. Col, M.B., D.Biliond Villa, Dundee st
- Dickson Robert, Dailidne Villa, Dundee st, Paisley Villa 

#### TAILORS
- Marked thus: are also Clothiers.
  - Anderson Andrew, Barry
  - Carnoustie Co-operative Association, Ltd.

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### CARNOSTIE

#### INSURANCE OFFICES AND AGENTS
- Carnoustie: G. J. Fairweather, Dumfries at
- Angus Robertson, Dumfries at
- James Fairweather, Dumfries at
- Donald Cruikshank, Dumfries at

#### LIFE ASSOCIATION OF SCOTLAND
- Robert Summers, Church st
- National Provident, Free Glass: Robert Summers, Church st
- Scottish Accident: Robert Summers, Church st
- Scottish Equitable: David.

#### DAILY KEEPERs
- Christian Andrew, Panbride
- Crawford James, Philip st
- Cameron Robert, Hayson's Feus
- James Donald, Dumfries at
- Wiliam Gourlay, Newton of Panbride

#### DRESSMAKERS
- Marked thus: are also Milliners.
  - Archer James, Dundee at
  - Martin Margaret, Lochend House, Dundee at

#### DRYGROcers
- Black Ann, Brown st, Dundee street
- Millie O. Brown, Dundee at
- Edie Peter, Dundee at

#### FACTORY
- Neil Johnston the Earl of Dunblane's tailor, Dumfries at Carnoustie

#### FIRE, & OFFICE AGENTS
- See Insurance Offices & Agents.

#### FLESHIERS
- Black Ann, Brown st
- Sout & Simpson, Dumfries.

#### GROCERS
- For see Shopkeepers.
  - Marked thus: are also Spirit Dealers.
  - Sc mant Margaret, Easter Path rd

#### HOSPITALS AND INS.
- See also Spirit Dealers.

#### JOINERS
- See Wrights, etc.

#### LINEN DRAPERS
- Archer James, Dumfries at
- Fairweather George Ireland, Dumfries at
- Patrick George, Dumfries at

#### LINEN MANUFACTURERS
- Fairweather George Ireland, Dumfries at
- Martin George, Dumfries at
- Robb John (winery), East Path

#### MILLERS
- Bellie James, Monikie Mill
- Durgie James, Barry Mill
- Lawson Robert, Donnay Mill, Monikie

#### MILLINERS
- See Dressmakers.

#### MUSIC TEACHERS
- Booth Frederick, Dumfries at
- Paterson A. G., East Path Rd.

#### PAINTERS AND PAPERHANGERS
- Ellis James, Dumfries at
- Burrows James, Dumfries at

#### PLUMBERS, TINSMITHS, AND GASFIITERS
- M'Andrew John, Dumfries at and William St. Panbride
- Mc Coy David, East Sea rd

#### POTATO AND MANURE MERCHANTS
- Buchan James & Co. (and feeding stuffs, etc.)
- West Haven

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### FORFARSHIRE

#### TAILORS—continued.
- Robertson John, Barry
- Spalding John, Craichton, Montrose
- Stuart Charles, Barry Rd
- Tahab-Jonathan, Muirfield
- Young George, Dundee

#### VEGETABLE PRESERVERS.
- McOrdodale D. A. & Co. Locality Preserving Works

#### VETERINARY SURGEONS.
- Bell Thomas, Muirfield
- Ewan David, Barry

#### WRIGHTS AND JOI ERS.
- Black William, Dundee st
- Buis David & Son, Terence Rd
- Gray William, Templeton, Monikie
- Julian John, Mastradam
- Lawson James (cabinet maker), Dundee st
- Mack James, Barry
- Milne James, Quiby Den, Monikie
- Morton James P. Newton, of Pittbigh
- Storrock Alexander, Afleck Place, Monikie
- Storrock David, Lockyslaik, Monikie
- Watt Alexander, East Path Rd

#### MISCELLANEOUS.
- Alexander William M. (heritors' and session clerk, Monikie
- Angus Alexander, station master, Carnoustie

#### CARNOSTIE
- Duncan James, school attendance officer, Locality Bank
- Fairlie Andrew, manager, Garnet ter
- Forrester Joseph, hairdresser, East Path Rd
- Gray Alexander, harbour clerk, Jardinefield Cottage
- Henry Robert, photographer, Dundee st
- Johnson Joseph & Son (Monsieur), licenses of saloon fisheries, Carnoustie
- Morrison William, bank teller, Botton row
- Morrison J. P. accountant, Vine Cottage
- Nicoll William, chemist & druggist, Dundee st
- Outilve James, keeper of the Tay lights, Baldonny
- Paris Jane, poultry dealer and fruiteller, Dundee st
- Port Robert, fish dealer, Dundee st
- Rae James, jan., manager, Exmouth st
- Ramsey John P. watchmaker, Dundee st
- Robertson William & Robert McNeil, keepers of the Dundee Waterworks, Monikie
- Scott William, soda water manufacturer, Carnoustie
- Simpich Robert, golf club maker, The Smith William, shipmaster, Sea shore
- Wallace Robert, ferrier, Bradfoot

#### PUBLIC BUILDINGS, OFFICES, &c.

<table>
<thead>
<tr>
<th>PLACES OF WORSHIP</th>
<th>AND THEIR MINISTERS</th>
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<tbody>
<tr>
<td>Carnoustie</td>
<td>Rev. Alexander H. Gibson</td>
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<tr>
<td>Barry</td>
<td>Rev. Charles F. Stevenson</td>
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<tr>
<td>Monikie</td>
<td>Rev. John Reid, M.A.</td>
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<tr>
<td>Panbride</td>
<td>Rev. James Cesar</td>
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<td>Carnoustie—Rev. James Philp</td>
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<tr>
<td>Barry</td>
<td>Rev. Alexander J. Campbell</td>
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<td>Monikie</td>
<td>Rev. Malcolm McEltrey</td>
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<tr>
<td>Panbride</td>
<td>Rev. James Innes</td>
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<td>Unstated Presbyterian Churches:</td>
<td>Carnoustie—Rev. John F. Dempster</td>
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<tr>
<td>Carnoustie</td>
<td>Rev. Alexander Miller</td>
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<td>miller</td>
<td>Rev. James Patrick</td>
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**Angus & Moray Association of Inspectors:**
- Poor meetings held quarterly.
- Saturday in January, April, July, and October, in different places.
- Chairman: J. Carse.
- Berry, Carnoustie; vice-president: Rev. David, Marr, Maryton, Montrose, secretary and treasurer.
- Bowling Club, Carnoustie—David Ramsay, secretary and treasurer.
- Coast Guard Station, West Haven—Robert Steel, third officer.
- County Police Station, Dundee—James Gray, sergeant.
- Dalhousie Golf Club, Carnoustie—Thomas Willock, secretary and treasurer.
- Inspectors of Poor, Collector of Rates, and Registrars of births, deaths, and marriages for the following Parishes:—Barry, H. W. Ewart, Carnoustie; Monikie, William F. Alexander; Panbride, Jas. P. Morrison, M.P., secretary of Panbride.
- Panbride Works Institute, Carnoustie—John Nicoll, secretary.
- School Board—Barry, John M. Nicoll, clerk and treasurer; Carnoustie, James Duncan, Locality Bank, offices; Monikie, William M. Alexander, clerk and treasurer; Young Men's Christian Association, Carnoustie—A. B. Walker, secretary; George Hunter, treasurer; Andrew Guch, assistant keeper.

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**COYNEVANCE BY RAILWAY,**

**ON THE DUNDEE AND ARDMOUTH LINE.**

<table>
<thead>
<tr>
<th>Station</th>
<th>Carnoustie</th>
<th>Alexander Angus</th>
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<tbody>
<tr>
<td>Station</td>
<td>Barry</td>
<td>John Tyler, station master</td>
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<tr>
<td>Station</td>
<td>Barrow</td>
<td>Robert Smith, station master</td>
</tr>
</tbody>
</table>

**ON THE DUNDEE AND FORFAR SECTION OF THE CALCOTTIAN LINE.**

| Station | Monikie | William Mitchell, station master |

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886
FORFARSHIRE  
KIRRIEMUIR  
SLATERS

feet. A little to the east of the town is the cemetery, situated on the southern slopes of the town, the grounds being beautifully laid out and terraced, and command a vast extensive view of the valley of Strathmore and the Ochil Hills, and the Balfour hills to the distance; all united to form one of the most picturesque landscapes within the confines of this county. The miles to the north-west, within the boundary of the parish, over the small river Garry, stand the Edinburgh Mountains, a lofty and durable ridge, in a state of good preservation, and two miles west are the ruins of Castle Eglinton and the Medical Royal. The surface of the parish, which extends from twenty miles by six, and embraces an area of Fifteenth acres, is much diversified. To the east and west of the town it is almost level, but the greater part of the district is beautifully tarred with hills and dales, rivers, woods and arable fields—some parts embellished with thriving plantations, and it is intersected by roads in all directions. The weekly market, held on Friday, and there is a monthly cattle market; and the fairs on the second Wednesday after the 29th May, the 29th July and the Wednesday after the 29th November, and on the first Friday of May and the 29th November. The population of the entire parish is 30,382.

Airth near the town is a parish about six miles from it. It is situated in the eastern part of the county on the north side of the river Forth: its length is about six miles, with a breadth varying from a half to four miles. It is intersected and bisected, on the east by Kirriemuir and on the south by Invergowrie and the Tay, and the boundary is formed by the river Forth and its tributaries, the Leith and the West. Within the parish is situated in the north-east a part of the Ogilvie, Earl of Airie, and most frequented in the summer months by visitors. Separate portions of the ancient abad are preserved, Base, Base; it was returned by George Miller, 1792.

POST OFFICE, Kirriemuir. David Enchouch, Post Master.—Letters arrive from all parts of Scotland at 10 a.m.; from all parts at 10 a.m. and 4 p.m.; and from Forfar, Dundee, and North of Scotland at 7 p.m. and are despatched to all parts of Scotland at 7 a.m. to Aberdeen, Stirling, Edinburgh, and North of Scotland; to Forfar, Dundee, Elgin, Montrose, and all parts at 7 a.m.;—Money Order and Telegraph Office and Savings Bank.

Forfarshire  
KIRRIEMUIR  
SLATERS

facing the front wall and turret with the salient porte cochere, which are now covered with and ornamented with various types of the modern decorative style. The parsonage lies on the west, and is built of the same materials as the church, and is surrounded by a single-storey building, with a small stone wall, in a state of good preservation, and two miles west are the ruins of Castle Eglinton and the Medical Royal. The surface of the parish, which extends from twenty miles by six, and embraces an area of 3232 acres. Within the parish of Denton is a part of Castle Eglinton, the most remarkable ruin of the county. The town of Denton was partly destroyed by fire. Population in 1811, 479.

KIRRIEMUIR is a parish and small village, about four miles distant from Kirriemuir, its post town. The breadth of the parish is about 25 miles, and its average breadth is nearly 8 miles. It is bounded by the parishes of Kirriemuir and Castleton on the west and east, by Airley on the south, and by Lintlarie on the north. Culture, the highest hill in the parish, rises to the height of 12 feet above the level of the sea; from its summit one of the most extensive views in Scotland may be obtained. Population, 1811, 279.

COACH BUILDERS, Stewart & Scott, Rodds street.

POST OFFICE, Kirriemuir. David Enchouch, Post Master.—Letters arrive from all parts of Scotland at 10 a.m.; from all parts at 10 a.m. and 4 p.m.; and from Forfar, Dundee, and North of Scotland at 7 p.m. and are despatched to all parts of Scotland at 7 a.m. to Aberdeen, Stirling, Edinburgh, and North of Scotland; to Forfar, Dundee, Elgin, Montrose, and all parts at 7 a.m.; —Money Order and Telegraph Office and Savings Bank.

Letters for Airley, Cortly, Cains, Kingoldrum, and Lintlarie should be addressed "near Kirriemuir."
DIRECTORY

KIRRIEMUIR

JOINTS AND WRIGHTS.
Barrie George, Carruth
Davidson & Herald, Rothes
Doddie, David, Listfull
Essie James, Well bank
Hay & Macmillan, Airlie
James David, Dunbeath
John James, Kinghorn
Low John, Station Brae
McKie John, Allardyce
McKie Alexander, Dykehead, Curragh
Nicoll James, Rothes
Ogilvy Charles, Airlie sq
Stevenson Alexander, Rothes
Stewart David, Airlie

LIKE MERCHANTS.
See Coal & Lime Merchants.

LINEN & WOOLLEN DRAPERS.
Adam Mary, Rothes
Alexander James F. Highst
Cameron George F., Airlie sq
Cameron Thomas, Gleigstane
Kennedy James, Newtonst
Kennedy John, Highst
McKie William, Highst
McKie John, Bankst
Stewart Clementina, Lindedra
Valentine Jane, Gleigstane
Winter James, Curragh

LINEN MANUFACTURERS.
Brown James, Hill Bank, Rothes
Duke George & Son, West Town &
Dundie James, Newton
Hutchison Charles & Son, Rothes
Nicoll Charles, Lily Bank
Ogilvy Brothers (manufacturers of)
oaline, sheetings, serico
brown & bleached towelling,
paddings, bessarins, beddens & c.

MILLERS.
Bell John, Kinghorn
Black George, Davidst
Fairweather John, Newtonst
Findingall Andrew, Rothes st
Findingall David, Lindedra
Findingall John, Rothes st
Findingall James, Lindedra
Findingall John, Newtonst
Findingall James, Newtonst
Findingall John, Newtonst
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PAINTERS & PAPERHANGERS.
Marion Alexander, Rothes st
Pearson George, Bankst
Savage David, Highst

PLASTERERS.
McPherson Donald, West Town &
Munro George, Reform st

FLUMBERS, GASPITINGERS, &c.
Alexander Alexander, West Town
Hindie James, Newtonst
Sibbald George, Edinburgh
Stewart A. & Son, Rothes st

PRINTERS—LETTERPRESS.
See Bookbinder, &c.

SADDLERS & HARNESS MAKERS.
Findlay James, South Murr
Stirton James, Airlie sq
Young John, Highst

SAW MILL OWNERS.
See Timber Merchants.

FORFARSHIRE

SCHOOLS.
BACKWATER SCHOOL, Linedrass—Mrs.
Sommers, mistress
Boats of Knock School, Linedra—John
Cook, master
Dyce School, (St. Mary’s), Rothes—
Henry Ernest Peach, master
FEMALE SCHOOL, Cargill, Airlie—Jane
Veitch, mistress
(Roll, mistress
DUMBARTON SCHOOL, Kinnoull—John
PULL MARKET
Reform st—Alexander Flute, master; Miss
Craig, mistress
Roundhill—Thomas Herriot, master
Airlie—David Taylor, master
Carroells—Archibald Stewart, master
Clens—William Black, master
Curragh—Thomas R. Black, master
Gymnastics—Robert D. Whyte, master
Kingsmill—James R. Fenton, master
Linedra—William P. Anderson, master
Pahonas—D. Fawcett, master
Watermil, Curragh—Robert H. Vosma
master
Robb Miss—, Park view
WESTERSETT’S ACADEMY, Newtonst—Alexander
McKay, master; Ann Dutharne, laudant’s
master

SHOEKEEPERS & DEALERS IN

SUNDRIES.
Alland Stewart, Newtonst
Bell Mary, Kinghorn
Bruce George, Dunbeath
Clens James, West Bank
Findlay Andrew, Rothes st
Forrest Margaret, School Wynd
Mock Jane, Dunbeath
Milar Alexander, Dunbeath

SLAVERS.
Howie William, West Town &
Macleod Isabella, Rothes st
Stewart Alexander & Son (and slate
merchants), Rothes st
Walter Alexander, Newtonst

SOLICITORS & NOTARIES.
Black & Wilson, Gleigstane
Black & Wilson, justice of peace, depute clair
Gleigstane at
Davidson James, (proctor before
sherriff’s court, sherriff clair depute, clair to the
Airlie School board, sub-distributor of stamps,
and sub-collector of taxes), Bankst
Stuart Archibald (town clerk), Bankst
Wilson James (and clerk, and treasurer to
Kirriemuir school Board, and treasurer
and collector to the Police Commission), Bankst
Wilson Thomas (Black & Wilson), Gleigstane st

SPIRIT DEALERS & PUBLIC HOUSES.
(See also under the head Grocers.)
Brown William, West Stow
Brown James, Curragh
Christie Barbara (Freemasons’ Arms), Gleigstane
Donald John (Newtonst Inn), Newtonst
Gillettee Mrs. Ayes, (The New
Stair, Station brae
Hay William (Inns), Bankst
Lawrence William, Inns, Bankst
Lawrence William, Inns, Bankst
Lawrence William, Inns, Bankst
Lawrence William, Inns, Bankst
Lawrence William, Inns, Bankst
Low John (town clerk), Bankst
Young John, Bankst

STONEMASONS & BUILDERS.
Anderson James & Son, Rothes st
Craib & Young, Rothes st
Loudon John, West Town
Ogilvie & William, Watson John (quarter owner), West Bank

SURGONS.
Clark George, M.B., C.M., Bankst
St Clair William, M.B., C.M., Newtonst

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## FORFARSHIRE

### TAILORS
- Marked those a are also Clothiers.
  - Robert Logan, 1, Forfar Street.
  - John Scott, 1, Forfar Street.
  - James Wilson, 1, Forfar Street.
  - John McLean, 1, Forfar Street.
  - John Paterson, 1, Forfar Street.
  - John Brown, 1, Forfar Street.

### CARRIERS
- Andrew Davidson, 1, Forfar Street.
- John Black, 1, Forfar Street.
- John Paterson, 1, Forfar Street.
- John Brown, 1, Forfar Street.
- James Wilson, 1, Forfar Street.
- James Scott, 1, Forfar Street.

### BANKERS
- Robert Logan, 1, Forfar Street.
- John McLean, 1, Forfar Street.
- John Paterson, 1, Forfar Street.
- John Brown, 1, Forfar Street.
- James Wilson, 1, Forfar Street.
- James Scott, 1, Forfar Street.

### INSPECTORS OF POOR AND COLLECTORS OF RATES
- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

## KIRRIEMUIR

### PLACES OF WORSHIP AND THEIR MINISTERS

#### CONJURATIONS
- High St.: Rev. John Boyd
- Newton: Rev. John Watt
- Lowden: Rev. James Urquhart
- Kirriemuir: Rev. James Urquhart

#### ELECTION OF CLERGY AND DESECTS
- High St.: Rev. John Boyd
- Newton: Rev. John Watt
- Lowden: Rev. James Urquhart
- Kirriemuir: Rev. James Urquhart

### MUNICIPAL OFFICIALS
- Superintendent of the Probate: James Anderson
- Baron: John Ogilvy, younger, of Densward
- Magistrates: James Mackie Wilson, James Anderson, and Robert Martin

### PUBLIC BUILDINGS, OFFICES, ETC.

#### PUBLIC BUILDINGS
- Public Hall, Kirriemuir: James Ogilvie
- Town Hall, Kirriemuir: James Ogilvie

#### OFFICES
- Post Office: John Ogilvy
- Telegraph Office: John Ogilvy
- Police Station: John Ogilvy
- Court House: John Ogilvy

### LICENSEES
- James Ogilvy, 1, Kirriemuir
- James Ogilvy, 1, Kirriemuir
- James Ogilvy, 1, Kirriemuir

### WATCH AND CLOCK MAKERS
- Robert Martin, 1, Kirriemuir
- Robert Martin, 1, Kirriemuir
- Robert Martin, 1, Kirriemuir

### LIGHT HOUSES
- Grange: John Ogilvy
- Newton: John Ogilvy
- Kirriemuir: John Ogilvy

### FREEHOLDERS
- James Ogilvy, 1, Kirriemuir
- James Ogilvy, 1, Kirriemuir
- James Ogilvy, 1, Kirriemuir

### REGISTRIES OF BIRTHS, DEATHS, AND MARRIAGES
- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

## SLATERS

#### SLATERS
- Forfar: James Ogilvy
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

### CONVEYANCE BY RAILWAY

#### CONVEYANCE BY RAILWAY
- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

## LETHAM

**Letham, with the Parish of Dunichen.**

Letham is a village situated in the north-eastern portion of the parish of Dundicham, 2 miles N. from Forfar, its post-town, and a mile and a half from the Old Bot Road Bridge, on the Scottish South-Eastern Section of the Celisston Railway. It is a modern little place, having been erected on the site of St. Dunichen. The inhabitants are chiefly employed in agricultural pursuits.

**POST OFFICE,** Letham, John D. Stewart, Postmaster. - Letters from all parts arrive (from Forfar) at 12 o'clock, and are despatched the same day.

**REGISTRARS OF BIRTHS, DEATHS, AND MARRIAGES.**

- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

**BATIONE'S**

- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

**MISCELLANEOUS.**

- Brownie James, cattle dealer, West Town.
- Burnet Helen, toy dealer, Reform St.
- David Brown, fish dealer, Bank St.
- Deas, Alex, and pedlar dealer, Kirkyard.

**SCHOOL BOARDS.**


**CONVEYANCE BY RAILWAY.**

- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

#### CONVEYANCE BY RAILWAY

**CONVEYANCE BY RAILWAY.**

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- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
- Kinneil: Charles Simon
- Letham: John Young

**CARRIERS.**

- To Densward, High St.: Alexander Nicoll
- To Glenrothes, High St.: John Ogilvy, Robert Paterson, and William Lawson

**INSPECTORS OF POOR AND COLLECTORS OF RATES.**

- Forfar: David Taylor
- Corton: James Martin
- Ceres: Thomas P. Black
- Kirriemuir: William Edward
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- Letham: John Young

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- David Brown, fish dealer, Bank St.
- Deas, Alex, and pedlar dealer, Kirkyard.
BELAKAWE

miles in length by from 8 to 15 in breadth; and is interrupted only by the occurrence of three or four properties on one side of a valley or glen, the other side of which belongs entirely to the estate of Breadalbane, in 1783-94, raised two formidable regiments comprising 2300 men, of whom 1600 were obtained from the estate of Breadalbane alone. A presbytery of the Free church bears the name of Breadalbane; is in the synod of Perth and Stirling; and has churches at Aberdeenshire, Ardoch, Portgordon, Glenlyon, Kemnay, Killin, Lawers, Logierait, Strathfillan, and Tummel-Bridge, and a mission station at Amulree, which together had 2266 members and adherents in 1911.

Breakachay, a burn in Laggan parish, Inverness-shire, It is a trivial runnel in dry weather, but becomes a voluminous and destructive torrent after a few hours of heavy rain.

Breakachy, a hamlet in Strath parish, Isle of Skye, Inverness-shire, with a post office under Breadalbane. A parish council was in 1150-93. There is an average attendance of 62, and a grant of 292. 16s.

Breasclet, a village in Digg parish, Lewis, Outer Hebrides, appears in 1291 (vol. 100 109). 3029.

Brechin, a royal and parliamentary burgh and a parish of Forfarshire. The town stands on the left or northern bank of the North Esk, which is bridged by an ancient wrought bridge, and by road is 8 miles WNW of Montrose and 152 NE of Forfar, whilst by rail it is 4 miles W by N of Bridge of Dun Junction, 96 WNW of Montrose, 455 SSW of Aberdeen, 45 NE of Perth, 92 NNE of Edinburgh, and 104 NE of Glasgow. The Forfar and Brechin direct railway was opened in June 1845. "As an old Episcopal seat, Brechin," (from Dr. Guthrie's Memoirs), "is entitled by courtesy to the designation of a city," but, apart from its memorials of the past, the interior aspect of the place has little to distinguish it from any other Scotch burgh of its size. With Brechin, as with more important places, it is distance that lends enchantment to the view. Seen from the neighbouring heights, owing to its remarkable situation, it is picturesquely distinctive, almost unique. A very steep, winding street, a mile in length, conducts the visitor from the higher portion of the town to the river South Esk; and when he has crossed the bridge, and ascended some way the opposite bank, let him turn round, and he can scarce fail to be struck by the scene before him. The town seems to hang upon the sunny slope of a fertile wooded valley; the river, widening above the bridge into a broad, deep bed of deep still water, reflects in its upper reaches the ancient trees which fringe the precipitous rock on which Brechin Castle stands, fits home for a feudal bower, which, with the right of the castle, and on a still higher elevation, rise the grey spires of the Cathedral and the adjoining Round Tower. The mile is well by the steeply ascending, roof below roof, to the green meadow which borders the stream; and, for background, some 10 miles to the N, the long blue range of the Grampians.

Brechin appears first early in the reign of Kenneth Mac Malcolm (971-95), who, 'gave the great city to the Lord, founding a church here dedicated to the Holy Trinity—no monastery seeming after the Irish model combined with a Caledine college. We hear of it next in two charters of David I. to the church of Deer, the first (1120-21) let, and the second in 1135 by Samson, bishop of Brechin, so that between these dates—most probably about 1120—the abbacy was added to that of Abernethy. From the oblong plan, it rises to a height of 86 feet, or, including the lateral conical stone roof, 101 feet, and is perfectly circular throughout, tapering regularly from an internal diameter of 72 feet at the base to one of 61 feet at the top, while the wall's thickness also diminishes from 4 to 2 feet. It is, built in sixty irregular courses, of blocks of reddish grey sandstone, dressed to a thickness of fifteen inches, but squared at neither top nor bottom; within, string-courses divide it into seven stories, the topmost lighted by four largish arched openings facing the east. A western doorway, 63 feet from the ground, has inclined garrison's surrender. In the 'Battle of Brechin' (13 May 1452), fought near the Hare Craig in Logdepar parish, 24 miles NNW of the town, the Earl of Huntly decisively defeated the Marquess of Montrose and his adherents. On the same day, the Earl of Argyll succeeded to the Earldom of Argyll, which had become extinct in 1334. The castle, on the hill Brechin, 10 miles NE of Forfar, whilst by rail it is 4 miles by Brechin, was built by the great city to the Lord, giving it to the Earl of Huntly, who 'gave the great city to the Lord, founding a church here dedicated to the Holy Trinity—no monastery seeming after the Irish model combined with a Caledine college. We hear of it next in two charters of David I. to the church of Deer, the first (1120-21) let, and the second in 1135 by Samson, bishop of Brechin, so that between these dates—most probably about 1120—the abbacy was added to that of Abernethy. From the oblong plan, it rises to a height of 86 feet, or, including the lateral conical stone roof, 101 feet, and is perfectly circular throughout, tapering regularly from an internal diameter of 72 feet at the base to one of 61 feet at the top, while the wall's thickness also diminishes from 4 to 2 feet. It is, built in sixty irregular courses, of blocks of reddish grey sandstone, dressed to a thickness of fifteen inches, but squared at neither top nor bottom; within, string-courses divide it into seven stories, the topmost lighted by four largish arched openings facing the east. A western doorway, 63 feet from the ground, has inclined...
BREICHIN

jams and a semicircular head, all three hewn from single blocks, and the arch being rudely sculptured with a cresting each jamb with a bishop bearing a pastoral staff, and each corner of the sill with a nondescript crouching animal. The ‘handsome bells,’ that Peanunt found here in 1725, were two most likely of the three, now hung in the neighbouring steeple. Such is this great tower, dating presumably from Kenneth’s reign (971-95), and so a memorial of Brechin’s early connection with his See (Augustine, and the authorities there cited.) An hospital, the Maison Dieu, was founded in 1264 by William de Brechin in connection with the cathedral; and its chapel is a rare First Pointed fragment, consisting of the S elevation and a small portion of the E wall, with a good doorway and three single-light, finely-moulded lancets. No scrap remains of the ancient city wall and ports; and the primitive features of the castle have nearly all been absorbed in reconstructions, which make it appear an irregular mansion of the 17th century, with a fine square tower and two round angle ones. Its library contains Burns’ correspondence with his publishers, the Catalogues of Brechin, St Andrews, etc.; the gem of its paintings is Honhorst’s original portrait of the great Marquis of Montrose. The Duke and Duchess of Edinburgh stayed here in Aug. 1831.

To come to the town itself, Brechin has a post office, with money order, savings bank, telegraph, and insurance departments; branches of the British Linen Co., Clydesdale, National, Royal, and Union banks, a National Security savings bank, a cemetery, gas-works, numerous inns and hotels, a public washing-house, an infirmary (£1900; cost, £1900) bowling, curling, and other clubs, Young Men’s and Young Women’s Christian Associations, horticultural and literary societies, and The Annals of Brechin (1830-51), published every Tuesday day morning. The town-hall, mainly rebuilt in 1769, is a respectable edifice; the Episcopal diocesan library, founded by Johnson of Thompanach, the Chancellories of Brechin, St Andrews, etc.; the gem of its paintings is Honhorst’s original portrait of the great Marquis of Montrose. The Duke and Duchess of Edinburgh stayed here in Aug. 1831.

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BRECKNESS

East Church (q. s.), Carleton, Craig, Dun, Edzell, Fernell, Fernhill (q. s.), Lethnot-Navar, Lochee, Lochepe, Maryton, Melville (q. s.), Menmuir, Montrouge, and Strathmore (Bannatyne Club); the Autobiography and Memoir of Thomas Guthrie; Dr Wm. Marshall's Historic Scenes in Forfarshire; and D. H. Edward's Pocket History and Guide to Brechin and District.

Brecon. See BRECKNESS.

Brecon, a hill, 605 feet above sea-level, in the E of St. Mungo parish, Dumfriesshire, flanking the Water of Mill, 33 miles SSE of Lockerbie.

Breck, a burn and a glen in Soutpans, Argyllshire, 7 miles SSE of Loch Knowmy, and traverses the south-eastward to Carskey Bay, 4 miles E by N of the Mill of Kintyre.

Breck Ness, a village in the W of the Isle of Skye, Argyllshire. Its post-town is Kilmuir under Portree.

Brecon, a voe or bay in North Yell, Shetland.

Breckenfield. See ANNA.

Breda, a quaint, pleasant old mansion, on the left bank of the Lochiel, 3 miles W of Alford village, Aberdeenshire. It was erected in 1681. The Episcopal Church, too, has a diocese of Brechin, with 35 churches or chapels and missions—Arbroath, Arbrothou, Auchmithie, Brechin, Broughtmy Ferry (the bishop's residence), Carnegie, Catterline, Cove, Cowie, Drumblith, Drumtochtly Castle, 7 at Dundee, Fasque, Fordoun, Glescaur, Invergoorie, Linnpark, Lethbel, Lochbe, Lochtie, Montrose, Muicall, Stonehaven, the Knock, and Torry.

See D. Black's History of Brechin; Billings's Baronial and Ecclesiastical Antiquities of Scotland; the Register of Epsicopatus de Brechin (Bannatyne Club); the Autobiography and Memoir of Thomas Guthrie; Dr Wm. Marshall's Historic Scenes in Forfarshire; and D. H. Edward's Pocket History and Guide to Brechin and District.

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Cleared, including their repeated voyages, whether with cargoes or in ballast:—

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<th>Entered.</th>
<th>British</th>
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<td>1865</td>
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<td>1870</td>
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<td>1874</td>
<td>147,682</td>
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<td>1882</td>
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The number of vessels that entered in 1894 was 2840 British and 44 foreign, and that cleared 2469 British and 40 foreign.

**Municipality, etc.**—Kirkwall, under the Burgh Police Act of 1864, is governed by a provost, 6 bailies, and 8 commissioners, and united with Wick, Cromarty, Dornoch, Dingwall, and Tain in returning a member to serve in parliament, Wick being the returning burgh. Corporation revenue (1895) £450, parliamentary constituency 504, municipal 583. For police purposes the burgh is united with the county. The Duke of Edinburgh visited Kirkwall on 24 Jan. 1882, and was presented with the freedom of the burgh. The district sheriff-substitute resides here, and ordinary and small debt courts are held every Tuesday during session. Quarter sessions are held on the first Tuesday of March, May, and August, and the last Tuesday of October. There are markets on the first Monday of every month, and in August is the Lamnas Fair, which used to last for a fortnight, though now it is pretty much confined to the market on the first Tuesday after 11 Aug. and the two following days. There are also a head post office, several hotels, offices of the Bank of Scotland, National Union, and Commercial Banks, a free library, established in 1853, in place of an old public library established in 1816, an Educational Trust, the Balfour hospital for the sick, a combination pothouse, a literary and scientific association, a young men's literary association, a branch of the Bible Society, a branch of the shipwrecked fishermen and mariners' benevolent society, masonic lodges, Good Templar lodges, a fire brigade, two batteries of artillery volunteers, a coastguard station, the Orkney Club and the Kirkwall Club, an ornithological society, golf, bowling, and cricket clubs, and three newspapers—the Independent Orcadian (1854) published every Saturday, the Liberal Orkney Herald (1867) every Wednesday, and the Liberal Northman (1874) every Saturday. Value (1853) £11,516, (1895) £13,961. Pop. of royal burgh (1841) 2204, (1851) 2444, (1861) 3444, (1871) 2525, (1881) 3677, (1891) 3925, of parochial burgh (1841) 3041, (1861) 3519, (1871) 3434, (1881) 3923, (1891) 3952, of 1002

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KIRRIEMUIR

... and the Scotch Jacobite, the Isle of Man, The Pirate, etc., and r 1814; Hugh (359); Billings' Scotland, vol. Description, 71; Kirkwall, (London, 1888); and (1893).

lyde, forming several parish, led in 1874, d of Argyll, were a post

Forfarshire, on the left states it from a branch of the vestry in and of Strath- the skirl of a brilliant chiefly con- to the arms of the pleasing successful order, pitchforks, or the arms of, don, and of Temple park, l, a gas- bowling, newspaper office of parish cost of replacements, two led up decipal 1 locker, was the t, who made it binary ...

KIRRIEMUIR

preservation; but they have manfully breathed every difficulty, and are admitted throughout the county to be expert and skilful operatives. Among them have been men of vast industry, who, having described in 1760, invented a method of weaving double cloth for the use of stay-makers, and wove and finished in the loom three yards of the fabric at a time. This invention was of the greatest importance during the middle of the 18th century, and so early as 1772 produced unsalubrious and coarse linens to the yearly value of £50,000. It turned out annually, before the close of the century, 1,600,000 yards of stamped linen; and year by year the produced has increased till now it reaches 100,000 pieces, varying from 100 to 170 yards, whilst giving employment in the town and neighbourhood to over 2000 weavers.

The seed of the weavers of Kirriemuir and the sons of Forfar has been already noticed under the latter town.

Kirriemuir is a burgh of barony, under the Earl of Home; but, as a burgh, it has neither property, revenue, nor debt. A baron bailie, appointed by the superior, up to the year 1785 was the only magistrate, and presided as judge in a police and barony court. In 1875 the General Police and Improvement (Scotland) Act was adopted, and the affaires of the town are now, under the Burgh Police Act of 1892, managed by a provost, 3 bailies, and 6 commissioners. The magistrates preside in the barony court; but the barons in the barony court held in connection with certain of the fair. New police buildings, estimated to cost £1000, were erected by the County Council in 1895-96. A school for boys was opened Monday, 20th January, March, May, July, September, and November; and justice of peace small debt courts on the first Friday of every month. Pop. of entire town (1831) 4034, (1861) 4685, (1871) 4145, (1881) 4290, (1891) 4179, of whom 2375 were males, whilst 2782 were in Kirriemuir proper at the police burgh and 1397 in the Southmuir suburb. The parish until 1891 was separated by the parish of Kingoldrum into two nearly equal parts—the main or Strathmore division, containing the town, and comprising 50 acres, of which 46 are water; and the northwestern or Glenprosen division, comprising 20,630 acres. The two divisions, at the nearest meeting points, were 12 mile asunder. The Boundary Commissioners, however, in the year mentioned, transferred the Glenprosen portion to the parish of Cortachy and Clava, thus limiting Kirriemuir to the Strathmore division. The parish is bounded N by Cortachy, N.E by Tamnacco, E by Oathlaw and Rescobie, S by Forfar and Kinnettles, S by Glamis, SW by Airlie, and W and NW by Kingoldrum, having an almost equal extreme length and breadth (29 by 11 miles), with a river and a road in the same direction, W of E by E to E of S and S miles. FROZEN Water, rising in the north-western extremity of the former Glenprosen section on the western slope of Benar at an altitude of 2750 feet, runs 123 miles through the interior of that section, then 23 miles south-eastward along the mutual border of Cortachy and Kingoldrum, afterwards winding 25 miles east-by-southward along all the Cortachy boundary of Kirriemuir, till it falls into the South Esk, which itself runs 2 miles east-south-eastward along all the Tamnacco border, and which from the interior is joined by Callery Burn, first tracing 13 mile the north-western boundary, and next flowing 52 miles eastward across the northern interior. GALIE Burn, winding 69 miles south-east-southward, passes off Glanis on its way to Dean Water, and is itself fed by Dairtie Burn, which traces 3 miles of the south-western and southern boundary. In the S of the parish the surface sinks to 190, along the South Esk in the NS to 290, feet above sea-level; and between these points it rises to 831 feet at the Hill of Kirriemuir, 513 at Cleisterbank, and 1018 at Callum's Hill. The parish is mainly Dever- nian, with occasional protrusions of trap. Limestone has been quarried and calcined. The soil of the arable tracts on both the northern and southern borders is sandy, and on the fringe of the ocean a black mould on a subsoil of so-called 'mortar.' One

eighth of the area is under plantations in fine arrangements of clumps and groves, eleven-sixteenths are regularly or occasionally in tillage, and nearly all the rest is chiefly pasture but partly mead, the mosses of Kin- nor and Balloch being constantly used for supplies of peat. Extant antiquities are tumuli and unincised monuments: tal stones, querns, arrow-heads, battle-axes, and two canoes or outriggers have been discovered from time to time; and not so long ago two ponderous rock- stones stood a little NW of the hill that overlooks the town. Inverquharity Castle is noticed by itself. Within this parish several skirmishes were fought arising out of the Ogilvies' feuds; and the Battle of Ar- seockit (1446) must have been a grievous blow to Kirriemuir. Mansions, noticed separately, are Kinloch, Shielhill, Logie, and Balnaboith. The parish, in the presbytery of Forfar and synod of Angus and Mearns, is divided ecclesiastically between Kirriemuir proper and Kirriemuir South Parish, the former a living worth £205. Four pre-Reformation chapels, besides the parish church, were in Kirriemuir—one in the town, near a plot of ground called in old writs the Kirkyard; one at a place called Chapeltown, 34 miles N by W of the town; one at Kinkhill, 2 miles S by N of the town; and one near Ballinhas, 3 miles ESE of the site of, which still enclosed with a wall, was used as a family burying-place. Four public schools—Carroch, Pendaranam, Koundyhill, and Wehurn—were called perspective accommodation for 60, 77, 91, and 60 children, have an average attendance of about 15, 60, 75, and 45, and grants amounting to nearly £257, £45, £75, £95, and £30. Valuation (1883) £31,610, 6s. 7d., (1893) £25,957, £61, 10s. 9d. for railway. Pop. (1801) 4821, (1831) 6245, (1861) 7539, (1871) 6420, (1881) 6616, (1891) 6909, of whom 3677 were in Kirriemuir proper, and 890 in Kirriemuir South Parish.—Ord. Sur., s. 56, 57, 65, 1688-70.

Kirkrouthtree or Kirkroothtree (Celt. saer-Vntrle, 'fort of Undertre'), a mansion with finely wooded grounds, in Minnigaff parish, W Kirkcudbrightshire, 1 mile NE of Newton-Stewart.—Ord. Sur., sh. 4, 1857.

Kirtle, a quoad sacra parish in Dumfriesshire, comprising parts of Annan, Kingkarpatrick-Fleming, and Castlehead parishes. The church, which stands near the village of Kirtle-Bridge, was built at a cost of £500. Kirtle is in the presbytery of Annan and synod of Dumfries. Pop. (1801) 1221, of which 246 were in Annan, 152 in Kirkpatrick-Fleming, and 769 in Middlebie.

Kirtle-Bridge, a village in the SE corner of Middlebie parish, Dumfriesshire, on the right bank of Kirtle Water. It has a station on the Caledonian railway at the junction of the Solway railway, 56 miles NNE of Annan and 43 miles ESE of Ecclefechan, under which there is a post office, with money order, savings bank, and telegraph departments.

Kirtlefute. See KIRKETO.

Kirtle Water, a stream of SE Dumfriesshire, formed in the extreme N of Middlebie parish, by the confluence of two head-streams, of which Winterhope Burn, rising at an altitude of 1250 feet above sea-level, runs 15 mile south-west-south-west, whilst the other, rising to 890 feet, runs 14 mile south-eastward. From the point where they meet (570 feet), Kirtle Water winds 165 miles south-west-south-westward through or along the boundaries of Middlebie, Kirkpatrick-Fleming, Annan, Dornock, and Gretna, till it falls into the head of the Solway Firth at Kirtlefoot. It traverses a vale of much beauty, richly embellished with wood. It enfolds the meadow of Kirkconnel burial-land, containing the grave of 'Fair Helen of Kirkconnel-Lee;' it is crossed, at Kirtle-Bridge, by a viaduct of the Caledonian railway, comprising nine arches, each 96 feet in height. It contains eels, perch, and trout, and is frequented by salmon.


Kirtomy. See FARR.

Kirston. See KIRKTON.

Kishorn, a sea-loch in the SW of the county of Ross and Cromarty, 54 miles W of Inverness (Lochcarron). Projecting from the N side of Loch Carron to the sea, it penetrates 64 miles north-eastward; oc-
CRAWPLA

CRAWPLA

fast strength. Legend throws over it much mystery and romance, one tradition making it the hiding-place of Lord Lovat at Culloden. The whole of Cawdor Castle, as described by Frazer, certainly calculated to impress the mind with a retrospect of past ages, feudal customs, and deeds of darkness. Its iron-grated doors, its ancient tapestry, hanging loosely over the walls, its creaking stone staircase, and its rattling drawbridge, all conspire to excite the most gloomy imagery in the mind. Among its intricacies must be mentioned the secret staircase, which concealed Lord Lovat from the sight of his pursuers. It is placed immediately beneath the rafters of the roof. By means of a ladder you are conducted by the side of one part of a sloping roof into a kind of channel between two walls, which frequently serves to convey rain-water into pipes for a reservoir. Proceeding along this channel, you arrive at the foot of a stone staircase, which leads up one side of the roof to the right, and is so artfully contrived as to appear a part of the ornaments of the building when beheld at a distance. At the end of this staircase is a room with a single window near the floor. A remarkable tradition respecting the foundation of this castle is worth notice, because circumstances still remain which plead strongly for its truth. It is said the original proprietor was directed by dreams, and on his death, and, following its footsteps, build a castle wherever the ass rested. In an age when dreams were considered as the immediate oracles of heaven, and their suggestions implicitly attended, it is natural to suppose the ass—as tradition relates—received its burden and its liberty. After strolling about from one thistle to another, it arrived at last before a thistle close to Cawdor, and there rested. In such a manner as that monarch's murder in Culloden.

CRAWPLA or Caplaw, a hill in the W of Nairn, 90 acres, and 1 mile N of Cawdor, and is an interesting building, with a curious lychee-gate and some old inscriptions. There is also a Free church, and three public schools—Barvan, Cawdor, and Cluness—with respective accommodation for 12, 15, and 48 children, in 1891 an average attendance of 33, 104, and 41, and grants of £23, 17s. 4d., 10s. 6d., and 24s. 14s. 6d. (1891) 1175, 1253, (1871) 1253, (1891) 1070, (1891) 1052. (Ord. & Sur., 1859.) See Description by the Trustees of Cawdor: A series of Papers selected from the Charter-room at Cawdor, edited for the Spalding Club by Burnet Imrie.

CERES

CERES

and has an altitude of 652 feet above sea-level; the lake is a dam on Patrick Water, and, measuring 1½ mile by 2 furlongs, is larger in winter than in summer.

Cayle. See RAIL.

Ceanneabainn. See DUNBRECK.

Ceanndar or Kennard, a loch in Dumfriesshire, central Scotland, 24 miles SSW of Grantly Castle. Lying 1400 feet above sea-level, it is 24 furlongs long and from 1 to 3 furlongs broad; its water abounds with small trout. Loch Ceanndar Lodge stands on its northern shore.

Ceanndar, a farm in Ceres and Bannockburn, SW Aberdeen, where the head of Loch Cailloch. Lying 2196 feet above sea-level, it measures 1½ by 2 furlongs, and seems to be the 'Loch Canter, very wild and dark,' of the Queen's Journal.

Caerhamgairb, a division of Eddrachillis parish, Sutherland, between Lochs Laxford and Inchar. The name signifies 'the rough section of a country,' and is truly descriptive.

Cellardyke or Nether Kilrenny, a fishing village in Kilrenny parish, SE Fife, forming an eastward extension of ANSTRUTHER-Easty, but unified as a royal burgh to KIRKENNY. At it are the old Anstruther churches, a branch of the National Bank, a ground source church, a Free Church hall (1870), a cod-liver oil works, fishing-gear factories, and a saw-mill. A public school for an infant school, with respective accommodation for 226 and 240 children, had (1891) an average attendance of 224 and 173, and grants of £245, 16s. and £142, 17s. Pop. of S. parish, (1891) 1602. See Geo. Gow's Fishery Life; or, the Memorials of Cellardyke.

Ceres, a small town and a parish of E central Fife. The town, standing on the left bank of Ceres Burn, 2½ miles SE of Cupar station, was originally called Curys or Ceres, after St Cyn, its patron saint in pre-Reformation times. It consists of the town proper and the north-western suburb of Bridgend, the former old, the latter modern; and comprises several streets, some good houses, and a neatly-kept green. Over its ancient narrow bridge the men of Ceres marched, according to tradition, to join Robert Bruce's army on the eve of Bannockburn; over it, too, Archbishop Sharp drove, in his lumbering coach, to meet his murderers on Mungo Muir. A burch of barony, under the Hopes of Craighall, Ceres carries on considerable industry in several departments of the brown linen trade, and has a post office under Cupar-Fife, with money order, savings bank, insurance, and telegraph departments, gas-works, an infirmary, and a horticultural society, and fairs on the 2nd and 20 Oct.; if Saturday, Sunday, or Monday, then Tuesday following. The parish church, rebuilt in 1806 on an eminence in the middle of the town, has a square castellated tower, and contains 1100 sitious, and is 200 feet above sea-level; it is the small tiled mausoleum—a transept of the former old church—in which its several illustrious members of the Crawford-Lindsay family. There are also a Free church, and 2 U.P. churches. Ceres is to have a station on the branch of the proposed East Fife Central Railway which is to run from Leven to Dairsie on the main line. Pop. (1891) 683.

The parish contains also the villages of Craigrothes, Chance Inn, Baldinnan, and Pitsootie, which stand respectively 1½ mile WSW, 2 miles WSW, 1½ mile SW, of Ceres town. Incoherent in outline, it is bounded N by Kemback and St Andrews, E by Cameron, SE by Kilconquhar, S by Largo, SW by Kettle, W by Culs, and NW by Cupar. Its greatest length from NE to SW is 8 miles; its breadth varies from 2 to 3 miles; and its area is 10,075 acres, of which nearly ⅓ acre is water. The Eden flows 2 miles along the north-western boundary; and its affluent, Ceres Burn, formed just above the town by Craigrothes, Glass Hoy, Craighall, and two lesser burns, flows 2 miles north-eastward into Kemback parish, and thence 9 furlongs northward through DURD DEN. The surface is pleasantly diversified, here rising to 600, there falling to 100, feet above sea-level; Walton Hill (222 feet) is the highest point in the parish. The rocks are partly eruptive, partly carboniferous; and basaltic columns form a
range or cliff, extending 3 mile N and S on Newbigging farm. Trap rock has been largely quarried, both for building and road-metal; sandstone abounds in the N; and limestone and coal are found in the S. The soil, near the town, is a friable earth, incumbent upon gravel and sand, and especially where the Eden is light and sandy. And elsewhere, where is partly reclaim moss or moor, but mostly a deep cold earth, incumbent variously on trap, limestone, and gravelly clay. About two-fifths of the entire area are in tillage, one-half being in grass, and one-tenth under plantations or waste. Craighall Castle, Struther House, and Scotstarvet Tower are the chief antiquities, and will be separately noticed. Natives or residents were Rt. Lindsey de Pitscottie, a 16th century historian, and Sir John Scott of Scotstarvet (1852-1870), author of The Strugging State of Scots Statesmen; among the ministers were Thomas Buchanan, cousin of the more famous George, and Thos. Halyburton (1674-1712), divinity professor at St Andrews. Teasess House and Edwenwood are good modern mansions, the former commanding a brilliant view of the Firth of Forth; and 8 proprietors hold an annual value of £500 and upwards, 16 of between £100 and £600, 12 of from £250 to £100, and 19 of from £20 to £50. Ceres is in the presbytery of Cupar and synod of Fife; the living (1891) had an average attendance of 41,133, and was valued (1584-1670), thence rising west-south-west to Collie Law (1856) and Cowan Law (1849), Carnie Common (1373), 3000 acres, of which 2700 were granted to the Duke of Roxburgh, and 180 acres to the use of the parish.—Ceres is situated a mile NE of Ceres, and grants of £25, 15s. 6d., £139, 12s. 6d., and £49, 4s. Valuation (1581) £583, 5s. 11d. Pop. (1801) 2352, (1811) 2712, (1821) 2313, (1831) 2063, (1841) 1677.—Ord. Sur., ab. 40, 1857-67.

Cessford, a hamlet of Eckford parish, NE Roxburghshire, 6 miles NE of Jedburgh, and 3 WSW of Morebattle. It stands on the right bank of Cessford Burn, which, rising in Oxnam parish, runs 42 miles north-by-eastward to Kale Water. Cessford Castle, 1 mile NE of the hamlet, was the seat from 1446 or thereabouts of the Kerrs of Cessford, ancestors of the Duke of Roxburgh, and gives to the Duke the title of Baron Ker of Cessnock, a small river of the NE of Kyle district, running 5 miles north-southward, and Mauchline parishes, being the source of the river. In its banks dwelt the lassie who said that 'it might never have been observed to within a mile of Mauchline town, goes thence about 4 miles ENE of Jedburgh, and gives to the Duke the title of Baron Ker of Cessnock, a small river of the NE of Kyle district, running 5 miles north-north-westward, partly through Mauchline; and running 5 miles south-westward through Sorn and Mauchline parishes, to which, within a mile of Mauchline town, goes thence about 4 miles north-north-westward, partly through Mauchline parish, partly along the boundary between Galston on the right and Larkfield on the left; and falls into Irvine Water at a point 22 miles E by S of Kilmaurs. Its winding course is varied and picturesque, and its waters afford good trout fishing, but are not open to the public. On its bank, dwelling with sparkling rugged green of Burn's song, Cessnock Castle, an ancient tower, the property of the Duke of Portland, stands in the parish and 13 mile SE of the town of Galston.—Ord. Sur., ab. 22, 14, 1863-65.

Chalmers. See Glasgow.

Chalum, Loch. See Caith.

Champdieuere, an estate, with a mansion, in the parish and three miles E of Lay 8 of the town of Dingwall. Its owner, Rt. Hathorn Johnston-Stewart, Esq. (b. 1824; suc. 1842), owns 2036 acres in the shire, valued at £235 per annum. See also Glascott and Pitferrill.

Chance Inn, a hamlet in Inverkeilor parish. Forfar.
ANSTRUTHER

In 1795, and widened and improved in 1817. A reach of the Kinneil Vale, above and below the bridge, is exceptionally beautiful; and the splendid mansion of Rae-
hall, with its fine gardens and grounds, is close by. Anstruther, a fishing and seaport town of SE Fife, comprising the royal and parliamentary burghs of Anstruther-East and Anstruther-West, and contiguous
eastwards to the royal burgh of Cellardyke or Nether Kilrenny. Situated at the entrance of the Firth of Forth, it stretches along its shore about 11 miles, and by water is 34 miles WNW of the Isle of May, 113 N of North Berwick, and 25 NE of Leith, while, as a station on the Leven and East of Fife section of the North British system, it is 138 miles E by N of Thornton
Junction, and 50 NE of Edinburgh, to Midlothian Bridge. By road, again, it is 24 miles SSE of St Andrews, whither a railway was constructed in 1831, at a cost of £3,500,000.

The new boundary follows the centre of the Waid
Academy, which was opened Sept. 6, 1886. It was endowed from funds mainly mortgaged by Andrew
Wald, lieutenant in the Royal Navy, a native of Anstruther-West, who died in 1883, and meant to provide for the main-
tenance and education of orphan
and seamen's boys. The funds being inadequate, and as an hospital at Anstruther for the purpose contemplated by him would be of com-
paratively little value, on account of the changed condi-
tions of naval warfare, the scheme of the Waid Academy was promoted by the trustees and the School Board, and finally approved by the Queen in Council in 1884. Anstruther-West has its own parish church, consecrated in 1893; a little stone coffin in its chancel was once the seat of St Adrian's. On 5 June, 1515, Knox preached here, exhorting the people; since the church was afterwards stripped of its images and
a steeple put on, the building was preserved as a place of worship; 'several alive will remember the rows of fine
arches left standing in this church, which open from a
nameless erection within and without' (Gordon's Scot-
cornwall, p. 303).

A Spanish war-ship, one of the
scattered Armada, put
423 miles out of the harbour in 1588; in 1648 many of the townfolk, zealous Covenanters, fell
at the battle of Killiecrankie; and the town itself, in 1651,
was plundered by the English. Great inundations (1670-90) did grievous damage, the property of all the
harbour, and the second a third of the houses; the
Union too, gave a serious shock to commerce, which, till then carried on by 24 ships vessels, employed but 2
in 1764. Three natives and contemporaries were the
great Dr Thomas Chalmers (1780-1847), a minor poet,
Captain Charles Gray, R.N. (1782-1831), and William
Tennant (1784-1848), author of Ander Fair, whose heroine 'Maggie Lawler' lived; it is said, on Anstruther
East Green.

A head port from 1710 to 1827, since then a creek or
sub-port of Kirkcaldy, Anstruther possesses a harbour of
its own, enclosed by two piers; but, this being found
too small, the Union Harbour was commenced in 1866.

With a Western breakwater and eastern pier, partly
built of concrete, and the latter fully 1900 feet long;
its area is of 7 acres, and, owing to frequent interruptions from storms, was only completed in 1877,
at a total cost of over £80,000. Anstruther is head of
all the fishery district between Leith and Montrose,
and fish-curing is the staple trade.

Anstruther-East was
made a royal burgh in 1663, and Anstruther-West in
1597, but the latter lost its municipal status in 1863,
not to regain it till 1899. The former is governed by a
provost, two bailies, a treasurer, and nine councillors;
Anstruther-West by a chief magistrate, one bailie, a
 treasurer, and nine councillors. With St Andrews,
Crail, Cupar, Kilrenny, and Pittenweem, they return
one member to parliament. Pop. of Anstruther-East
(1891) 1134; of Anstruther-West, 538.

The parish of Anstruther-East, conterminous with its
harbour, has an area of only 256 acres of land and
22 of foreshore. The boundaries of the parishes of
Anstruther-West and Pittenweem, previously badly
defined, were readjusted in 1891 by the Boundary
Commissioners. The new boundary follows the parlia-
montary boundary between the burghs of Anstruther-
West and Pittenweem from the north boundary of
Pittenweem parish down to the Firth of Forth and
Anstruther road. It then strikes east from the parlia-
montary boundary, running along the centre of this
county's junction with the Chain Road, down which
it runs to the sea. All to the west of this new boundary
is now in the parish of Pittenweem, and all to the east
in the parish of Anstruther-West. In the prebendry of
St Andrews and synod of Fife, its own
was a living worth £200, and Anstruther-West £240.
The former has one public school, the latter two, E and W;
and these three, with respective accommodation for 141,
223, and 194 children, had in 1901 an average atten-
dance of 75, 127, and 89, and grants of £67, 8s. 6d.,
£140, 10s. 6d., and £77, 17s. 6d. Pop. of its entire parish
(1891) 296, (1861) 400, (1851) 421, (1871) 545, (1881)

Anternomy House, a mansion in Campsie parish, S
Stirlingshire, near Milton station, and 23 miles ESE of
Lennox town. Here was born and here died John
Bell of Anternomy (1691-1758), well known by his
Travels from St. Petersburg to various parts in Asia (2
vols., Glasgow, 1768).

Anternomy Loch is a sheet of
water measuring 2½ by 2½ furlongs.

Antoninus' Wall, a Roman rampart extending from
Carriden on the Firth of Forth to Chapel-Hill, 3½ miles
below Old Kilpatrick village on the Clyde. Agricola in
81, having two years earlier passed the shores of the Sol-
way Firth, overran the country thence to the Firth and
the Clyde, and raised a line of forts along the tract from
Carriden to Chapel-Hill. Lollius Urbicus, in 139,
the year after Antoninus Pius ascended the throne and
was deputed as proprietor of Britain, to quell a general revolt.
Marching northward to the Firth and the Clyde, he subdued the hostile tribes, and, both to repel any further
attacks which might be made from the north, and to
hold in subjugation the country to the south, constructed
a great new work on the line of Agricola's forts. This
new work was the rampart afterwards known as Anto-
ninus' Wall. It measured 97,736 Roman paces, or nearly
36½ English statute miles, in length; it consisted of
55
FORDYCE, a village and a coastal parish of Banffshire. The village, standing on the right bank of the Burn of Foyd, is 5½ miles SW of Portsoy and 4 ESE of Cullen, on a spur of barony, having received its first charter in 1592, and another in 1599. Its nearest station is Glassburgh. It has a post office under Banff, and a fair on the Wednesday following Sunday of Shrovetide. On the E side of the village stands a large castellated building bearing the date of 1592. Pop. (1881) 331, (1891) 316.

The parish contains also the town of Portsoy, with the villages of Sandend and Nawmill, and prior to the reformation comprehended likewise the present parishes of Newburgh, Linn, and Tentsmuir. It is bounded N by the Moray Firth, E by Boyndie, SE by Ordighill, W by Grange, and SW by Deskford and Cullen. Its utmost length, from NNE to SSW, is 7½ miles; its greatest breadth, from N to SW, is 3½ miles; and its area is 17,690 acres, of which 17,752 are foreshore and 342 water. The Burn of Boynes, rising on the northern slope of Knock Hill, runs first across the southern interior, then northwards to the Boyndie border to the sea; Durn Burn runs 6 miles through the middle of the parish to the sea at Portsoy; and Fordyce Burn, rising at the boundary with Deskford, runs 31 miles across the north-western district to the sea at Sandend Bay. The coast, which, measured along its sinuosities, is 52½ miles long, is somewhat bold and rocky, with bays at Portsoy and Sandend, and headlands called East Head, Redithye Point, the Lighthouse, and Logie Head (189 feet). It is pierced with several coves, the principal Dove, Kitty, Bow, Cow, and others, and a number of these of any great extent. The interior is partly a fine flat, with frequent lochs or rising-gounds, and partly a series of banks and ridges, trending wales and dales. The elevations, from N to S, are Cowythye (257 feet), Swing Hill (309), Durn Burn (604), Fordyce Hill, the Hill of Inverkindling (923), and Knock Hill (1157 feet), the last of which, culminating at the meeting-point with Grange and Ordighill, presents a majestic appearance, and serves as a landmark to mariners without a considerable sweep of the Moray Firth. The rocks exhibit great diversity, at once of character and of interconnection; and, from the time of Hutton downward, have strongly attracted the attention of geologists. A beautiful serpentine forms two masses, respectively 73 and 1599 feet wide, in the vicinity of Fordyce, and is associated with syenite, hornblende, gabbro, slate, marble, and mica slate, in which the red mica marble, and is highly valued as a material for ornamental objects, having been exported in some quantities to France for adornment to caskets. Veins of graphite granite, comprising quartz and felspar, the arrangement of which resembles rudely formed letters, occur in the same neighbourhood; and a beautiful quartz, suitable for use in potteries, has been quarried on the northern side of Durn Hill, and exported to England. Limestone has been worked in the vicinity of Durnhill; and an extensive quarry of red sandstone is near Fordyce village, near Sandend, and at the mouth of the Burn of Boyne; and trap rocks, comprising common greenstone, syenite greenstone, hypersthene greenstone, and angular greenstones, occupy most of the interior. The soil is variously a light or a clay soil, and a strong clay, very productive along the seacoast, but cold and wet towards the S. Of the entire area is regularly or occasionally in tillage; one-fifteenth is under wood; and the rest is either pastoral or waste. Glassburgh House is a chief mansion, and Findlater Castle a chief antiquity, both being separately noticed. Other antiquities are remains of an ancient camp on Durn Hill, and cairns, tumuli, and remains of ancient Caledonian stone circles in various places. The seat of a presbytery in the synod of Aberdeen, this parish is divided ecclesiastically into Fordyce proper and the quoad sacra parish of Portsoy, the former a living worth £238. Its parish church, at the village, was built in 1594, and contains 1190 sittings. At the village, too, is a Free church; and other places of worship are noticed under Portsoy. Fordyce Academy, an institution for the board and education of nine boys of the name of Smith, natives of the parish, was founded and endowed in 1790 by Mr George Smith of Bombay. Besides two schools at Portsoy, the four public schools of Bogmuir, Bredwood, Fordyce, and Sandend, with respective accommodation for 49, 70, 30, and 89 children, have an average attendance of 37, 189, 186, and 67, and grants of £31, £42, £29, £63, £205, £63, and £219. The Established Church of Scotland. The Free Church of Scotland. The Free Church also has a presbytery of Fordyce, whose ten churches of Banff, Boyndie, Buckie, Cullen, Deskford, Enzie, Fordyce, Gruin, Portknockie, and Portsoy, together had 2566 communicants in 1894.

Foresfield. See Forestfield.

Forefield, a small peninsula in Sandsting parish, Shetland, opposite Forefield, and between Sand Voe and Sand Sound Voe.

Forestfield. See Forrestfield.

Foresthill, a hamlet, with a public school, in Cleckmanncar parish, Cleckmanncar shire, on the SE side of the Black Devon, 3½ miles ENE of Cleckmanncar town. The poet Michael Bruce (1746-67) taught a school here in 1768.

Forfar, a royal and parliamentary burgh, the seat of a presbytery, and the capital of Forfarshire or Angus, is situated in the centre of the southern portion of the county. By road it is 121 miles SW of Brechin, 14 NNE of Dundee, and 28 miles E of Edinburgh, at the junction of the Dundee and Forfar branch (1787) of the Caledonian with its through line to Aberdeen.
FORFAR

(1393-50), it is 154 miles WSW of Bridge of Dun June-
ion, 57 SSW of Aberdeen; 172 N by W of Broughty
Ferry, 80 NNE of Edinburgh (by the Tay and Forth
bridges), 324 NE of Perth, and 96 NE of Glasgow. The
country round is undulating; and the town stands, 200
feet above sea level, in a kind of basin formed by the
surrounding slopes. It is a burgh of great antiquity,
having been a royal residence in the time of Malcolm
Cecil, which, lying in Glamis

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through the body, for which he was tried, but acquitted through the ability of some Arnis to keep open house that, 'm stirrup-cup. And it was Forfar. Loch that an Earl of Hrathmore proposed to drain, by tumbling a few hogheads of whisky into it, and setting the 'drunken writers of Forfar' to drink it dry.

In 1526 Boece speaks of Forfar as 'having in time been a notable citie, though now it is the largest town in the county.' He says that the church of St John the Evangelist, in East High Street, is in the Early English style, and was erected in 1879-80, at a cost of £12,000, from designs by Mr R. R. Anderson. It consists of a nave (90 feet by 31), with a N aisle (74 x 12 feet) and a chancel (42 x 21 feet). The spire at the extremity is incomplete, 40 feet only of the projected 163 having been constructed. The building is seated for 600. The organ, by Couper, stands in a chamber 24 by 12 feet, and the case, like the pulpits and choir stalls, is of carved oak.

This is the third Episcopal church in Forfar since 1775. At the Revolution of 1688 the Episcopalians were not ejected from the parish church, but remained till the beginning of the 19th century, and communion was administered there by them at Christmas and Easter till 1821. After that, service was uninterruptedly held in the old Priory church of Restennet, and after 1745 in houses in secret till 1776, when a church was built. This building still stands, but it was only occupied by the Episcopal congregation till 1822, when Dean Skinner built the church that was pulled down in 1879 to make room for the present one. A Baptist chapel in Manor Street is an Early Gothic edifice, built in 1876 at a cost of £1700, and containing 400 sittings.

In 1894 the following were the six schools under the burgh school-board, with accommodation and attendance, and Government grant: Academy (200, 122, £146, 6s. 6d.), East (453, 389, £343, 17s. 6d.), Forfar (240, 234, £226, 10s.), North (400, 286, £284, 5s.), Wellington (350, 300, £226, 10s.), and West (267, 889, £516, 7s. 6d.). Besides these there are two evening schools and a ladies' seminary in Academy Street and Science and arts classes are managed by members of the town.

There are in the burgh an infirmary, a choral union, fire engine station, Young Men's Christian Association, the poorhouse, a mechanics' reading-room, building, golf, angling, cricket, bowling, football, and other clubs, including two good templar lodges.

A fine cemetery, 11 acres in extent, to the southward of the town, was opened in 1846, and contains a monument erected in 1852 by subscription to Sir Robert Peel. The figure stands upon a large pedestal, and is surmounted by a dome upborne on eight pillars. The incline is a county possession. The gas-works are managed by the corporation; and a first-class supply of gravitation water was introduced into the town in 1881 from the Den of Ogil.

As regards manufactures Forfar makes a small show compared with other towns in the county. The manufacture of wooden soled shoes or brogues, from the manufactory of Mr Ogil. of Camperdown Street, is said to be worth £30 a year.

The Priory church of Restennet served for the parish church till 1691, when a church was built at the town. The present parish church was built in 1791, and, as was said in 1856, contains 400 sittings. Its handsome door, 150 feet high, was added in 1814; and an organ was introduced in 1881. St James's quoad sacra church, seating 1100 people, was built in 1836 at a cost of £1200. Of two church halls one, the Parochial, was erected by Mr John Reid in the hall, and this resolution was carried into effect, Mr John Reid, of 'Forfar Rock', being the sculptor. The handsome chapel, 1843, contains the sheriff court-houses, built in 1836, and the library, 1850, seated for 400, of which Mr R. R. Anderson was architect. The handsome County Hall (the Reid Hall) for public worship, was added in 1869-71. They consist of

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FORFAR.

(both on Friday). The burgh is governed by a provost, 3 bailies, a treasurer, and 10 councillors, who also act as police commissioners. The regular courts are the burgh or bailie courts, and the burgh police courts. Forfar was the seat of the abbey of St. Munchin, 3 miles NNE, and the tary court of the burgh of Carseburn, was NNE, and the last meeting of the burgh court was in 1895. Annual value of real property (1866) £27,434, (1876) £23,255, (1882) £24,086, 15a. 3d., (1895) £28,556, exclusive of railways. The Forfar and Brechin railway was opened for passengers traffic in June, 1886. Pop. of royal burgh (1851) 13,579, (1891) 12,799; of parliamentary burgh (1841) 3492, (1851) 9811, (1861) 9285, (1871) 11,991, (1881) 12,817, (1891) 12,067, of whom 2921 were males and 6796 females.

The parish of Forfar, containing also Lunanhead, Carseburn, and Kingsmir hamlets, 15 mile NE, 19 NYM, and 12 SE of the town, is bounded N by Rescobie, E by Rescobie and Dunnichen, S by Inverarity, SW by Kinnettles, W by Kinnettles and Glamis, and NW by Kinnettles. Its extreme length, from N to S, is 40 miles; its breadth, from E to W, varies between 22 and 43 miles; and its area is 83749 acres, of which 264 are water. Local Fibhe (93 x 4 furl.) 2 miles NW of the town contains a little sheet of water, with wooded rising banks; Restennet Loch, near Lunanhead, was drained many years ago for its water. Loch Fithie was drained many years ago; but the drainage is partly carried off by Kinnettles and Glamis, and partly westward to the Lunan, and partly southward, by many intervening valleys cut out by streams and torrents, till they form at their water-line or highest ridge, the boundary line of the county. The parishes of them included in Forfarshire are called the Bennachie Mountains; and, viewed in the group, are far from possessing either the grandeur of the alpine districts of the West, or the picturesque beauty of the Sidlaw district.

From the higher summits of the Grampians a brilliant view is obtained, not only of Forfarshire and part of Perthshire, but of Fife, East Lothian, and the heights of the149

FORTH.

of the counties of Scotland, it has an utmost length from N to S of 36 miles, an utmost width from E to W of 365 miles, and an area of 890 square miles or 569,860 acres, of which 468 are forest land. It is divided into four well-marked natural divisions: the mouth or estuary, consisting chiefly of sandy dunes and links, 37 miles long, with a breadth of from 3 to 8 miles; the range of the Sidlaw Hills, 37 miles long, by an average breadth of 4 miles; Strathmore, the 'great valley,' otherwise called the Howe of Angus, 32 miles by 4 to 6 miles broad; and the hilly district or Braes of Angus, rising into the Grampian range, and measuring 24 miles by 5 to 9 miles broad.

The Grampian district forms the north-western division, and includes about two-fifths of the superintendental area. Like the rest of the range, the Grampian mountains here bar the road between the Highlands and the Lowlands of Scotland, and exhibit ridges behind ridges, with many intervening valleys cut out by streams and torrents, till they form at their water-line or highest ridge, the boundary line of the county. The parishes of them included in Forfarshire are called the Bennachie Mountains; and, viewed in the group, are far from possessing either the grandeur of the alpine districts of the West, or the picturesque beauty of the Sidlaw district.

The Strathmore district of Forfarshire is part of the great valley of that name, and stretches from the western boundary of the parish of Kettins, away north-eastward through the whole county, to the lower part of the North Esk. From its northern point south-westward it lies along the foot of the Forfarshire Grampians, till it forms the parish of Alclief; and it thenceforth, till the termination of the parish of Kettins, shares the continuation of Strathmore with Perthshire. Its surface is beautifully diversified by gentle eminences, fertile fields, plantations, villages, and gentlemen's seats. Small portions of it are covered with water during wet seasons, and, in other respects, have perhaps not received due attention from the cultivators of the soil.

The Sidlaw district of Forfarshire derives its distinctive features from the Sidlaw Hills. These are a continuation or offshoot of a range which runs parallel to Strathmore and the Grampians, from the Hill of Kinoul near Perth, to the N E extremity of Kincardine-shire. Seen from Fifeshire, the Sidlaws appear to rise at no great distance from the mouth of the Tay. They are covered with water during wet seasons, and, in some places, are covered with stunted heath, which in others they are cultivated to the top. The Strathmore district terminates at Red Head, a promontory on the coast, in the parish of Inverkeilor, between Aberdeenshire and Montrose. From some of the detached hills, respectively on the north-western and the south-eastern sides of the range, brilliant views are obtained, on the one hand, of the whole extent of Strathmore, and, on the other, of the scenery along the Firth of Tay and the German Ocean.

The maritime district of Forfarshire is, for a brief way, in the parish of Inverkeilor, identified with the Sidlaw district, but extends from the Tay and the limits of Lif and Fairlie to the S by the mouth of the North Esk on the N. In its southern part it is at first of very considerable breadth; but it gradually narrows as it becomes cut up between the Sidlaw Hills and the coast, in the parish of Inverkeilor, between Aberdeenshire and Montrose. From some of the detached hills—some of which are seen from the Baltic name of Dun—it's surface slopes gently to the Firth of Tay on the S, and the German Ocean on the E. At Broughty Ferry, where the Firth of Tay is very much contracted,
FORFARSHIRE

An extensive tract of links or sandy downs commences, and soon covers a great part of the parishes of Moneth and Barrie. Two other sandy tracts of incomparable breadth stretch along the coast respectively between Panbride and Gour, and another between the South Esk and the North Esk. In many places these downs evince, by extensive beds of marine shells, at heights ranging from 20 to 40 feet, that they were, for a period covered with the sea. The marine district is adorned with towns and villages, elegant villas and comfortable farmsteads, numerous plantations, and, in general, ample results of successful culture and busy industries.

The Tay, though it expands into an estuary 12 miles before touching the county, and cannot, while it washes its shores, be considered as a river, is greatly more susceptible to Forfarshire than all its interior waters. Sandbanks in various places menace its navigation, but are rendered nearly innocuous by means of light-houses and other appliances. From the Forfarshire and Montrose Brows, in the course of the Tay to near New Park, on the coast on the German Ocean is sandy; and thence north-eastward to near Arbroath, it cannot safely be approached on account of low, and, in many cases, sunk shoals. Forfarshire and Montrose Brows, and, in many places, performed at the base with long deep caverns, whose doors are boisterously washed by the billows of the sea. The Red Head, a rocky promontory, 267 feet in almost sheer ascent, terminates this bold section of the coast, as it does the inland range of the Sidlaws. Lullan Bay now, with a small sweep inward, presents for nearly 3 miles a fine sandy shore, and offers a safe anchorage. The coast again becomes rocky and bold as far as to the mouth of the South Esk; and thence to the extremity of the county, it is low and sandy.

At loch Barony, there is a rock promontory on which stands Broughty Castle, and from this point to the boundary of Perth on the W the coast-line is flat and alluvial. Excepting a castle cut out on the W by Forfarshire, Forfarshire is nearly square, and lines intersecting the limit points named meet near Shiehall Bridge in the parish of Tannadice, where the waters of Fossom, Esk, and Cartrey meet at the bitter bank of Invervarquay.

Forfarshire is much diversified. Along the northern and western boundaries extends the Grampian range; the Mounth (2954), Braemar (2824), and others, rising in the Lochs of Lundie and receiving the Fifthie, all of which reach the ocean between Arbroath and Broughty Ferry. The lochs and streams of Forfarshire afford excellent sport for the angler. The North Esk yields salmon, sea-trout, and common trout, the net fisheries being very valuable, over 2000 salmon having been taken on the first day of the season below the bridge of Marykirk. The South Esk and its tributaries yield trout, while salmon (strictly preserved) are also plentiful from Brechin downwards. The Isla, both in its Forfarshire and its Perthshire sections, receives a high character from Mr. Watson Lyall in his Sportsman's Guide; salmon penetrate to the Sugns of Auchannie, and up to this point there are heavy pike and trout of very fine quality. Above the Reekie Linn the stream yields first-rate sport, Loch Wharris, in the same locality, is the highest point, with upwards of sixty peaks exceeding 2000 feet. The Sidlaw Hills, on the S of the great glen, form a picturesque element in the scenery of the county. There are variated hills, with a maximum height of 1300 feet, at Auchterhouse Hill, and run down gradually to the eastward, where the range is culminated to the top. Principal summits in the Grampian range are Cairn na Gall (3141 feet), Cairn Bannoch (3141), Braemar (3141), Tolmount (3141), Driest (3105), Mount Ewen (3157), Mayar (3043), Finality (3043), Braidcam (3093), Banniran (2954), White Hill (2954), Carn Argo (2824), Banlie Low (2824), Mount Marlah (2824), and Mount Ballock (2555), Black Hill (2459), Hill of Cat (2453), Cairn Isla (2453), East Cairn (2318), Mount Blair (2441), Cock Cairn (2357), West Knock (2309), the Hill of Wirren (2220), The Bulg (1938), Nairn Tower, and the White Catrachan (976). In the Sidlaw Hills, the Galoshill (1242 feet), Gath (1141), Keil (1058), and Backhill (1058) are the highest points, and in the southern part of the county, hill ranges and oakwooded landscape presents great beauty and attractiveness. The lochs of the county, as well as its rivers, are insignificant in view of the large district drained, the course of the streams being occasional sport, as from the position of the watershed the county receives no streams from other districts, while it gives off some that increase in bulk before augmenting the Tay, which reckons as a Perthshire river. Two mountain burns, the Lee and the Enoch or Unich, unite in Lochlee parish, 12 mile above the lake of that name, which, measuring 8 by 23 furlongs, is a wild lake closed in by steeply rising cliffs. Lee, flowing from the loch, joins the Mark at Invermark, forming the North Esk, a stream which, after a course of 29 miles, falls into the German Ocean during the last 15 miles of its course, the boundary between Forfar and Kincardine. Its principal affluent in the county is West Water, rising in Lethnot parish, and joining the Esk at Strathmore. The South Esk, rising in Clova, has a course of 482 miles, and runs into Montrose Basin. In its upper course it is a mountain stream, but, after receiving its principal tributaries, it runs due E through Strathmore as a quiet lowland river. Parallel with its upper course is Ulen Prosen, whence the South Esk receives Prosen Water. The other main affluents are the Cary, the Norun, the Lemoon, and the Pow. Further is the beginning of the Tay to near New Park, on the coast on the German Ocean is sandy; and thence north-eastward to near Arbroath, it cannot safely be approached on account of low, and, in many cases, sunk shoals. Forfarshire and Montrose Brows, and, in many places, performed at the base with long deep caverns, whose doors are boisterously washed by the billows of the sea. The Red Head, a rocky promontory, 267 feet in almost sheer ascent, terminates this bold section of the coast, as it does the inland range of the Sidlaws. Lullan Bay now, with a small sweep inward, presents for nearly 3 miles a fine sandy shore, and offers a safe anchorage. The coast again becomes rocky and bold as far as to the mouth of the South Esk; and thence to the extremity of the county, it is low and sandy.

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FORFARSHIRE

Geology.—The county of Forfar is divided into two distinct geological areas by a line drawn from Lintrathen Loch NE by Cortachy Castle to near Edzell. The tract lying to the W of this line is occupied by metamorphosed Silurian strata; while to the E, the Old Red Sandstone formations lie. These ancient lavas are the northern prolongations of the volcanic series of the Ochils. Though they form prominent ridges, they are so much altered that the thickness is inscrutable when compared with their development in the former range.

The volcanic series is conformably overlaid against the NW side of the strata by sandstones and conglomerates containing an important band of shales and a bed of cornstone. This band of shales which constitutes the Upper or Turin fish bed has been traced from Turin Hill NE by Farnell and Langsfield to Isla Castle, a distance of 14 miles. Similar organic remains to those already described have been obtained from this bed at three localities. The members of this subdivision are inclined to the NW at angles varying from 10° to 15°, and this dip continues till the centre of the basin is reached near Tannadice, where the highest beds in the county are exposed in the red sandy marls. Though the latter resemble some of the strata belonging to the Upper Old Red Sandstone, they are in reality only a conformable portion of the lower division. At Cortachy and Tannadice they are about 2 miles broad, but when followed to the NE, the basin gradually widens till at the county boundary the sandy marls occupy a strip of ground about 50 feet wide. They 'tail off,' however, near Tannadice, and the underlying sandstones and conglomerates occupy the centre of the syncline in which the strata pass eastwards to Alyth, where the sandy marls reappear and are well developed in the Tay at Stanley.

Along the northern margin of the trough the strata rise rapidly to the surface. They are inclined at high angles over the beds of water to which the name of Lake Caledonia has been applied by Sir Archd. Geikie. The northern margin of that ancient lake was defined by the Grannanian chain, and even during the deposition of the inorganic portion of the series, a strip of highland must have remained above the water. One of the most interesting phases of that period was the display of volcanic activity which gave rise to great sheets of lavas and ashes, the igneous materials being regularly interbedded with the sedimentary strata. The volcanic series attains its greatest development in Perthshire, as will be shown in the description of the geology of that county.

The geological structure of the area occupied by the Lower Old Red Sandstone of Forfarshire is comparatively simple. Two great flexures, which can be traced far into Perthshire on the one side, and into Kincardine-shire on the other, cross the county in a NW and SE direction. In Strathmore, the strata form a synclinal trough, the axis of which extends from the mouth of the burn of Alyth to Strachathro, and in the centre of this basin the highest beds in the county are exposed. Again the chain of the Sidlaws coincides with a great anticlinal fold which brings to the surface the oldest members of this formation in the county. It ought to be remembered, however, that in the Lower Old Red Sandstone of Perthshire we find strata which occupy a higher horizon. A line drawn from the neighbourhood of Longorgan NE to Montrose, marks the crest of the arch referred to, from which the strata dip in opposite directions at angles varying from 10° to 15°. The oldest beds, consisting of brown and grey sandstones, flagstones, and shales, are exposed along the crest of the arch and the Longorgan and Ardmillan strata of Frickheim. The well-known Arbroath paving stones belong to this horizon, but perhaps the most conspicuous member of this sub-division is a thin band of shale from 3 to 5 feet thick forming the lower fish bed. It can be traced along the NW side of the axial fold from Balruddery Den to Tilling, and on the SE side from Duntreath to Carnyttle to Leysmills. At all these localities it has yielded fish remains, huge eurypterids, myriapods, and remains of land plants. These just described are succeeded on both sides of the arch by the members of the volcanic series consisting of thick sheets of diabase-porphyrite which are interbedded with sandstones, tuffs, and thin bands of conglomerate. These ancient lavas are the northern prolongations of the volcanic series of the Ochils. Though they form prominent ridges, their thickness is inscrutable when compared with their development in the former range.
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occurrence of moraines in these beds has only recently been brought to light by the late James Macdonald, or grub shrimp, which was discovered by the late Dr Page in the Forfarshire flagstones, and which could not be accurately described over the surface except in the vicinity of the \( \text{\text{\textit{..}}} \), while to the \( \text{\text{\textit{..}}} \), are likewise met with, perched on the slopes and tops of various eminences in the flagstones, as for instance on the hills between Lunnony Den and Lundie at a height of some few feet. But these foreign blocks are brought into conjunction with the primary soils that they can hardly be distinguished, yet occurring distinctly along the banks of streams, or in old beds of lakes and river-expansions, and frequently a considerable way up the slopes adjacent to these. In the Strathmore district, the few tracts range in character from sand, through different kinds of gravel, to trap \( \text{\text{\textit{..}}} \), vegetable peat, and sand, and are comparatively unfertile. In hollows these soils have been saturated with moisture, and converted into fens or mosses. Around Montrose the farm of Balbegno is a patch of clayey clay, similar to that of the carnars of Gourie and Falkirk. In the whole of Scotland the percentage of cultivated area is about 24.7; in Forfarshire it is 1.4, a percentage higher than that of twenty-two, and lower than that of ten, other Scottish counties. Less than one-twenty-third of the whole of Scotland is under woods; in Forfarshire the proportion is below one-seventeenth, viz., 92,739 acres. The finest of its trees are noticed under Kinnaid, Gray, and Pannour.

Agriculture continued long in Forfarshire to be as inert or rudo as in most other parts of Scotland, but it shared early in the activity of the new agricultural era, and acquired vigour from the efforts of Dempster of Drumchier and other extensive landowners, and from the Lnnan, the Strathmore, the Angus and Mearns, and Angus and Perthshire, and the Eastern Forfarshire Agricultural Associations. For many years prior to 1872, it exhibited an energy, a skill, and a success little inferior to those of the Lothians. As indicating the progress of agriculture in Forfarshire in recent times, the following interesting summary is quoted from Mr John Small's prize paper on Forfar and Kincardine, published in the Transactions of the Highland and Agricultural Society, fourth series, vol. xiii., 1864.

From the Rev. Mr Rodger's report on Forfarshire, drawn up in 1794, it appears that wheat was then cultivated in every parish in the lower part of the county; that Angus oats, still famous, had thus a wide reputation; and that some grasses were used on almost every farm; that turnips were largely sown, and that potatoes were cultivated with great success, the yield in some instances being as high as from 50 to 60 bolls of 16 stones per acre. The number of cattle was estimated at 66,499—a small breed, ranging in weight from 16 to 20 stones, and in height from 4 to 5 feet, occupying the higher ground, and a larger breed, weighing from 40 to 70 stones, the lower parts. Sheep numbered 53,370, and were mostly of the black-faced, a few being of the dun or slate-colored kind, and others of mixed breeding. On some of the better managed farms, and around proprietors' residences, there was a good deal of enclosed land, mostly under pasture. Farm implements were still primitive, but improvements were fast being introduced. The clumsy old Scotch plough, modernised by metal boards, was still in use, but improved ploughs, chiefly of Small's make, were speedily superseding it. It was not un-

001
common to see four horses attached to a plough; and oxen were employed on many farms. Thoughtmen's wages without board averaged about 1s. 4d. per day. There was then a large extent of wood in the county, and early in the present century the area was greatly increased by Lord Airlie, Sir James Carnegie, the Strathmore family, and others. The Rev. Mr Headrick states the number and rental of the farms in 1813 as follows — viz., under £20 of annual value, 1,574 farms; £20 and under £60, 240; £60 and under £200, 629; £200 and under £300, 315; above £300, 86, total, 3,292.

'The spirit of improvement aroused in the last century has never been allowed to lie dormant. True, during the last 25 years a small extent of land has been reclaimed than during either the last 25 years of the 18th century or the first 25 of the present, but that has not been due to any flagging in the spirit of improvement, but simply to the fact that only a limited area of suitable land remained for the proprietors and tenants of the past 25 years to bring under cultivation. There has been less done lately simply because there has been less to do. No reliable data exist upon which to estimate the extent of land reclaimed during the first half of the present century. The Rev. Mr Headrick estimated the arable land in Forfarshire in 1813 at 340,643 acres, but it is clear that that far exceeded the actual extent; for the area at present under all kinds of crops — ore, fallow, and grass — falls short of it by near 1,000 acres.

'Confining ourselves to the last 25 years, we find that there has been a substantial increase in the extent of arable land. The following figures afford a pretty correct indication: — acres in 1834, 419,721; in 1870, 528,009; in 1880, 253,730. The percentage of the arable area in Forfarshire under cultivation in 1870 was 41 percent, and it is about 65 percent. This increase, equal to 124,446 acres a year, must be regarded as highly creditable, especially when it is considered that, as previously stated, agricultural improvement had been carried to a great length long before the last 25 years as a small extent of land existed after 1850. So far, therefore, as to lead comparatively little to be done. The main portion of the new land lies in the Braes of Angus along the foot of the Grampians, but there is also a fair proportion on the Sidlaw range.

'The claim of land, however, has not constituted the whole of the agricultural improvements in the county during the last 25 years. Indeed, it is doubtful if it has not in outlay been far exceeded by the improvement in farm buildings, draining, fencing, roadmaking, and other accessories which tend to develop the resources of the soil. There has been a great deal done in the improvement of farm buildings, and these are now, on the whole, fully abreast of the times. In several parts of Forfarshire re-draining might be carried out with advantage; but still, since 1854, a great improvement has been effected in the condition of the land in this respect. In the wheat and potato districts there is yet a large stretch of open land, but in the parts where the pasturing of live-stock holds a prominent place in the economy of the farm, a great extent of fencing, mostly wire and stone dykes, has been erected within the last twenty-five or thirty years. In service or farm roads, too, as well as in the county roads, there has been considerable improvement, while not a little has been done in the way of straightening watercourses, squaring fields, draining small pieces of lake or swamp, clearing the land of stones, and in other small but useful works.'

The areas under various crops are given in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Wheat</th>
<th>Hay</th>
<th>Grass</th>
<th>Oats</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854</td>
<td>12325</td>
<td>33122</td>
<td>20955</td>
<td>8912</td>
<td>76422</td>
</tr>
<tr>
<td>1870</td>
<td>13705</td>
<td>20416</td>
<td>60623</td>
<td>5074</td>
<td>90114</td>
</tr>
<tr>
<td>1880</td>
<td>10038</td>
<td>21479</td>
<td>31629</td>
<td>5089</td>
<td>77814</td>
</tr>
<tr>
<td>1891</td>
<td>8417</td>
<td>20828</td>
<td>50539</td>
<td>5780</td>
<td>99956</td>
</tr>
<tr>
<td>1895</td>
<td>7024</td>
<td>27793</td>
<td>31864</td>
<td>1324</td>
<td>75681</td>
</tr>
</tbody>
</table>

The agricultural live-stock in the county is shown in the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle</th>
<th>Horses</th>
<th>Sheep</th>
<th>Pigs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854</td>
<td>48003</td>
<td></td>
<td></td>
<td></td>
<td>51738</td>
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<tr>
<td>1860</td>
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<td>1880</td>
<td>51941</td>
<td>10076</td>
<td>104851</td>
<td>4784</td>
<td>182347</td>
</tr>
<tr>
<td>1890</td>
<td>55241</td>
<td>10200</td>
<td>137430</td>
<td>7727</td>
<td>220307</td>
</tr>
</tbody>
</table>

The polled Angus breed of cattle has a history of peculiar interest, and the herds existing in the county are valuable and important. Mr Macdonald in his report on the agriculture of the county, says that in the 18th century the excellent beef-producing qualities of the herd had been discovered, and that large herds were formed. The credit of being the first to commence the systematic improvement of the breed belongs to Mr Hugh Watson, Keiller, an intimate friend of Sir Walter Scott, and of the Bowes, Headrick, and other noted improvers of the cattle breeds of the kingdom. His herd was founded in 1803, and consisted of 6 cows and a bull left him by his father, and of 30 of the best heifers and the best bull he could find at Trinity Muir Fair. Although no complete record exists of Mr Watson's system, his theory was to 'put the best to the best regardless of affinity or blood.' His herd was dispersed in 1860. The entrance of rinderpest dealt a heavy blow to the cultivation of breeding herds, but there has been a revival, and the county contains several well-known families, including that at Mains of Kelly, founded in 1810. The breeding of shorthorns has been carried out by Mr Lyall at Kincraig, near Brechin, and afterwards at Old Montrose, but this herd, nearly extinguished by rinderpest in 1865, was finally dispersed in 1874.

The breed of black cattle, previous to the introduction of turnips and sown grasses, was small, and the cattle were yoked and driven into the forest. As the population increased, the whole was smaller in the remote than in the more cultivated districts, but, as stated by Mr Macdonald, it has been improved throughout most of the county by crossings and importations, so as to correspond in progress with the progress in the arts of tillage. The distinction between the best feeding and the best milking breed, so essential to improvement in matters of the dairy, is much less maintained or observed than in Ayrshire and other dairy districts. The original breed of sheep was the small white-faced sheep, believed to have been the aboriginal breed of Britain; but in the early part of the 19th century, it was almost wholly superseded by the black-faced sheep, brought principally from Peebleshire. Geats were at one time kept in the mountainous districts, but on account of the injury they did to plantations they were exterminated in the latter part of the 18th century.

The manufacture of coarse fabrics from flax, jute, and hemp, is carried on to a vast extent in Forfarshire, and comprises considerably more than half of the entire linen trade of Scotland. The spinning of yarn in large mills, and the working of canvas, broad sheetings, bagging, and other heavy fabrics in factories, are conducted on a vast scale in the large towns; and the weaving of osnaburgs, dowlas, and common sheetings employs an enormous number of the smaller towns and villages. Besides the numerous linen factories in the larger towns of the county, the
FORFARSHIRE

spinning, weaving, and bleaching of linen are carried on in the county; a large number of the manufactures in these towns. Manufactures of leather, gloves, soap, candles, hand cards, machinery, confectionery, and other articles are carried on in considerable quantities. In the southern districts, principally Dundee, Arbroath, and Montrose, and are noticed in our articles on these places. The railways of the county emb Bancothe Dundee and Perth, which runs a few miles along the coast to Dundee; the Dundee and Arbroath; the Arbroath and Montrose, along the coast to Montrose; the Montrose and Bervie, going along the coast into Kincairneshire; the Tay Bridge connections at Dundee; and the connections and branches to Forfar, Brechin, Kirriemuir, etc. (See CALEDONIAN RAILWAY and NORTH BRITISH RAILWAY.)

Forfarshire, with a constituency of 12,154 in 1896, returns one member to parliament; Dundee returns two members; and Montrose, Arbroath, Brechin, and Forfar, forming with Bervie the Montrose Burghs, return one. Other towns are Kirriemuir, Broughty Ferry, and Carnoustie; and the principal villages are Anchorhill, Barnhill, Claypotts, Dundee, East End, Forfar, and Stonehaven. The number of inhabitants in 1891 was 100,895. The county is governed by a County Council, the Elected Members, which, with accommodation for members of the county councils and commissioners of supply, committees for each of the above four districts, composed of county councillors and representatives from the following four districts:-Dundee district, 13; Brechin district, 12; Arbroath district, 11; and Forfarshire, 12; the latter being elected by the council of the county, consisting of county councillors and representatives from the following districts:-Dundee district, 13; Brechin district, 12; Arbroath district, 11; and Forfarshire, 12; the latter being elected by the council of the county, consisting of county councillors and representatives from the following districts:-Dundee district, 13; Brechin district, 12; Arbroath district, 11; and Forfarshire, 12; the latter being elected by the council of the county, consisting of county councillors and representatives from the following districts:-

The county is divided into 55 civil parishes. There are 31 quoad sacra parishes, and these with the civil go to make up the presbyteries of Forfar, Brechin, and Arbroath, and partly to form those of Dundee and Meigle—all of them included in the synod of Angus and Mearns. The Free Church has similar divisions, with 66 charges within Forfarshire; and the United Presbyterian Church, in its presbyteries of Arbroath and Dundee, has 33 Forfarshire charges. The Scottish Episcopal Church has 18 churches; the Roman Catholic, 9; and the Jewish, 2; the number of worshipers are—1 English Episcopal, 6 Evangelical Union, 9 Congregational, 4 Wesleyan, 8 Baptist, 1 Unitarian, and 5 United Original Seceder. In the year ending Sept. 1894 there were 50 schools maintained by the state, and 52 by voluntary bodies, which, with accommodation for 53,887 children, had 49,418 on the rolls, and an average attendance of 40,296. Their staff consisted of 631 certified, 171 assistant, and 541 pupil teachers.

The territory now constituting Forfarshire belonged to the Caledonian tribe of the Vernicos. It formed, till the time of Kenneth II., a part of Strathbogie; and from 935 and earlier to 1242 was included in the old Celtic mormaership or earldom of Angus. Its civil history possesses hardly a distinctive feature; and, excepting a few facts which properly belong to the history of its principal towns, Brechin, Arbroath, Dundee, Forfar, and Montrose, and to its castles, as Finhaven, Edzell, and Arbroath, it is blended in the general history of the counties X of the Forth. The chief immigrant barons, at the period of the Anglo-Saxon colonization, whose descendants continue to figure most conspicuously in the county, were the Lyons, the Maules, and the Carnegies. Sir John Lyon, a gentleman of Norman extraction, having married a daughter of King Robert II., obtained, among other grants, the castle and lands of Glamis, and was the founder of the noble family of Barons Glamis.
Maule's, afterwards Earls of Panmure, and the time of Alexander the Great, married the Conqueror from Normandy to
in Earls of Glamis, and on Dundee,
~Dundee, are in refer to the drowning of the murderers of
besides the abbey at
similar to the famous round towers of Ireland, and the Castle at ruins of them, are the
Affleck Castle in dral of Brechin, the tower of the town churches of Brechin. Interesting ancient ecclesiastical edifices, or . and the churches of Kettins and Fowlis. Several in most instances entirely disappeared. tic edifices, of inferior note to Arbroath Abbey, were and Jervise's
of and works referred to under
village of
Remains of 'vitrified forts are found on Finhaven Hill Oa.thlaw parish's Forgan, Menmuir' on Forfar Loch. In Rescobie Castle, Donald Bane, Ag.
medieval castles ,,.ere various in Glenesk, Kelly Castle
Carved stones at Glamis are believed to the abbey of
Memorials :Montrose, Ceannmor, was tortured in

Monarch's castle of Edzell, the castle of Edzell:the Hilton detached to Perthshire) so much of .Forgandenny as is for e shor e. The Firth of TAY, contracting 
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Forfardenny, a post-office village in Perthshire, and a parish formerly also in Kinross-shire. The village stands 150 feet above sea-level, 3 miles W of

Forfar, and 21 mile by Forteviot. Its utmost
length is 42 miles; its utmost breadth 29 miles. In 1891 the Boundary Commissioners transferred to Forfardenny parish the Hilton detached part (1857 acres) of Forteviot parish, but transferred to that parish (and to Perthshire) so much of Forfardenny as lay south-west of the river May, thus uniting Forteviot parish with its remaining detached part. By this transference Forfardenny parish is now entirely within the county of Perth. The river EARN, winding eastward across the northern portion, describes some of those graceful curves, and forms many of those beautiful meadows for which it has been so much admired; and the Water of MAY, its affluent, has a course of 3 or 4 miles north-westward along the boundary with Forteviot. Both the Earn and the May are not large, but they amply compensate any damage they inflict by bringing down rich deposits of fertilizing silt. One or two springs adjacent to the eastern boundary possess cumbly

FORFARSHIRE RAILWAY

Turnsidie, Sidlaw, and Strathblighty, and Earls of Strathmore. Guerin de Maule accompanied William, the Conqueror from Normandy to England; Robert de Maule, a son of Guerin, followed Earl David, afterwards King Robert I., into Scotland; Roger, the second son of that Robert, married the heiress of William de Valonzie, Lord of Panmure and chamberlain of Scotland in the time of Alexander II.; and from them sprang the Maule family of Earls of Lauderdale, and the Fort- Maule-Ramsays, now Barons Panmure and Earls of Dalhouse. The Carngies ramified into several branches, two of which became respectively Earls of Southesk and Earls of Northeaek.

Remains of vitrified forts are found on Finhaven Hill in Oathlaw parish, on Drumsturdy Moor in Monifieth parish, and on Dundee Law. Ancient hill forts are traceable on White Caterhun and Brown Caterthun in Menmuir parish, at Denoon Law, 2½ miles SW of Glamis, and on Dunnichen Hill, Dunbarrow Hill, Carbullo Hill, Lower Hill, and several other eminences.

In many instances these forts are indicated only by heaps of loose stones. Cairns and ancient standing stones are in various places, particularly in Aberlemno and Monikie parishes. Vestiges of Roman camps are at Haerfauld in Lour Moor, at a part in Forfar Moor about 4 mile NE of Forfar town, and at War Dykes or Black Hill, about 2 mile N of Brechin. At Drumhidh Cairn the revoluted Picts defeated and slew Eogfrid, the Northumbrian king, recovering thus their independence, 20 May 563. Carved stones at Glamis are believed to refer to the drowning of the murderers of Malcolm II., who are said to have perished by falling through the ice on Forfar Loch. In Roscobie Castle, Donald Dane, brother to Malcolm Commor, was murdered by his nephew Edgar, and died in 1097, his enemy dying ten years later. Queen Mary in her journey north visited, besides the abbey at Coupar-Angus, the castle of Edzell. Great mediaval castles were at Forfar and Dundee, but have long been extinct; and other mediaval castles, still represented by considerable remains, in various conditions of conservation or of ruin, are Broughty Castle at Broughty Ferry, Red Castle at the head of Lunan Bay, Airlie Castle in Airlie parish, Finhaven Castle in Oathlaw parish, Invermark Castle and Eidsell Castle in GLENesk, Kelly Castle near Arbroath, and Affleck Castle in Monikie parish. A round tower, similar to the famous round towers of Ireland, and the only one in Scotland except one at Abernethy, is at Brechin. Interesting ancient ecclesiastical edifices, or ruins of them, are the parish church or cathedral of Brechin, the tower of the town churches of Dundee, the abbey of Arbroath, the Priory of Restonett, and the churches of Kettins and Fowlis. Several monas
tio edifices, of inferior note to Arbroath Abbey, were in Dundee, Montrose, Brechin, and other places, but have in most instances entirely disappeared. See Andrew Jervis's Memorials of Angus and Moray (Edinb. 1861), and Land of the Lindsay (Edinb. 1863); William Marshall's Historic Scenes in Forfarshire (Edinb. 1875); T. Lawson's Report on the Past and Present Agriculture of Forfarshire (Edinb. 1891); James Macdonald's 'Agriculture of the County of Forfar' in Trans. of the Highl. and Ag. Soc. (1831); Alex. J. Warden's Angus or Forfarshire, the Land and People (4 vols., Dundee, 1889-93); and works referred to under ARBO Roth, Brec Hin, DUN DEE, and MAR TON.

Forfarshire Railway. See DUNDEE AND FORFAR RAILWAY.

Forn, a parish in the N of Fife, on the Firth of Tay, containing the post-town of Newport and the village of Woodhaven, the former 11 miles NNE of Cupar and 43 miles SSW of Dundee (by steam ferry). It is bounded NW by the Firth of Tay, E by Ferrypoor ty-Craig and Leuchars, S by Leuchars, Logie, and Kilmany, and W by Balmerino. Its utmost length, from E to W, is 8, its utmost breadth 6 miles; its breadth varies be
between 1½ and 3 miles; and its area is 5082 acres, of which 100 are foreshore. The Firth of Tay, contracting here from 2½ miles to 1½ mile, is crossed at Wormit Bay, in the western extremity of the parish, by the Tay Rail Bridge, erected 1871 to 1875, 2713 feet long, with slight curvature, from SW to NE; and above and below Newport projects the small headlands of Pluck the Crow Point and Craig Head (formerly Starness). The shoals of the estuary are entirely silted; at high water shows a line of gravel or boulders; and the coast is all bold or rocky, rising rapidly in places to a height of 100 feet or more. The Geology of the parish presents an irregular and undulating surface, a series of heights and hollows that attain 300 feet near Northfeld, Inverlovet, St Fort, and Wormithill, and 400 at Newton Hill in the SW corner of the parish. The land slopes generally towards the Tay; and the immediate seaboard is, to a large extent, studied with villas of Dundee merchants and manufacturers, and, finely adorned with gardens, shrubberies, and woods, commands magnificent views across and along the Tay. The principal rocks are sandstone, sandstone conglomerate, fine-grained greenstones, trap, and amygdaloidal greenstone, the last of which has been largely quarried, both for house-building and for enclosures. The soil, over the greater part of the area, consists of the debris of the trap rocks, being partly light and gravelly, but chiefly either a good black loam or a clayey earth. About four-fifths of the entire area are in tillage, the rest being pretty equally divided between

The principal districts of the county are

Orn:., SURR., ed. 49, 48, 1845, p. 368. Forfardenny, a post-office village in Perthshire, and a parish formerly also in Kinross-shire. The village stands 150 feet above sea-level, 3 miles W of Bridge of Earn, and 1 mile S of the river Earn, and of a station of its own name on the Scottish Central section of the Caledonian railway, this station being 4½ miles SW of Forfar. The parish is bounded NW by Aberdalgie, NE by Perth and Rhind, E by Dunbarny and Droon, SE by Arngask, and SW and W by Forteroit. Its utmost
length is 42 miles; its utmost breadth 29 miles. In 1891 the Boundary Commissioners transferred to Forfardenny parish the Hilton detached part (1857 acres) of Forteroit parish, but transferred to that parish (and to Perthshire) so much of Forfardenny as lay south-west of the river May, thus uniting Forteroit parish with its remaining detached part. By this transference Forfardenny parish is now entirely within the county of Perth. The river EARN, winding eastward across the northern portion, describes some of those graceful curves, and forms many of those beautiful meadows for which it has been so much admired; and the Water of MAY, its affluent, has a course of 3 or 4 miles north-westward along the boundary with Forteviot. Both the Earn and the May are not large, but they amply compensate any damage they inflict by bringing down rich deposits of fertilizing silt. One or two springs adjacent to the eastern boundary possess cumbly
PAISLEY

who was minister from 1709; William Motherwell—
who by education may almost be counted a Paisley man
(1797-1835), poet, antiquary, and journalist; Thomas Shand—(1760-1839), Bishop of Glasgow University; Alexander Smith (1829-67), poet, and here followed for some time his profession as a pattern designer; George Glaister (1810-90), the author of the
Library Britannica; and Dr John Witherspoon
(1722-94), minister of the Laigh parish, afterwards
president of the College of New Jersey, theological writer.
The parish of Paisley until 1821 had a detached part
separated from the main portion by a narrow strip of
Abbey parish, and within this detached part was a
detached part of Abbey parish. The Boundary Commis-
sioners united the Paisley detached part to the main
portion by annexing a portion of the intervening part
of Abbey parish, and the detached part of Abbey parish
was then transferred to the Paisley parish. The parish
of Paisley is divided ecclesiastically into the High,
Laigh, and Middle parishes, all within the burgh,
and all till 1726 forming part of Abbey parish. The
quoad sacra parish of Martyrs' is partly taken from
Abbey parish and partly from High Church parish,
that of North Church from Middle Church parish, that
of St Columba's from High Church parish, and of
South Church from Abbey parish and Laigh Church parish.
The populations in 1891 were—9425 in High Church parish; 755 in North Church parish; 11,086 in Martyrs',
7693 in North, 2409 in St Columba's, and 7901 in South, the rest being in the Abbey parish.
The Presbytery of Paisley comprehends the quoad
civitas parishes of Abbey-Paisley, Eastwood, High
Church Paisley, Houston, Inchnam, Kilbarchan, Lawton;
Parish Paisley, Lochwinnoch, Mearns, Middle Parish Paisley, Nellston, and Renfrew; the quoad sacra parish
of Barrhead, Bridge of Earn, and of Paisley; the
parishes of Barrhead, Bridge of Earn, and Renfrew;
and the mission stations of Nethercraigs south-eastward along the north-eastern boundary, and
Laigh Parish Paisley, Lochwinnoch, Renfrew, and Portpatrick railway, 32
miles ESE of Newton-Stewart. Lead and copper
have been found at Paisley, but the workings have been
abandoned.—Ord. Surv., sq. 4, 1857.

PANBRIDE.

Panbride, a hamlet and a coastal parish of SE Forfar-
shire. The hamlet lies 14 mile NNE of the post-town,
Carnoustie.
The parish, containing also Muirdrum village and
the Newton of Panbride suburb of Carnoustie, with
the fishing villages of West Haven and East Haven, is
bounded N by Carnville, NE by Arbirlot, SE by the
German Ocean, SW by Barry, and W by Monikie. Its
length, from NW to SE, is 48 miles; its breadth
ranges between 9 furlongs and 22 miles; and its area
is a portion of the intervening part
includes the former Inverpuffer detached
portion of St Vigeans parish, comprising 1106 acres,
which was transferred by the Boundary Commissioners
in 1891 to the parish of Panbride. Monikie Burn,
coming in from Monikie parish, runs 44 miles south-eastward across the interior to the sea between East
and West Haven. Its dell, called Battie's Den, is mostly
flanked by steep or mural rocky banks, 20 to 60 feet
high, and is spanned, at a romantic spot, by a bridge
taking over the road from Dundee to Arbroath.
Another rivulet, also coming in from Monikie, and
traversing a similar dell, runs 24 miles east-south-east
across the northern interior, next 15 miles south-east
across the north-eastern boundary, and
next 14 mile through the interior, till it falls into
Monikie Burn at a point 4 mile NB of the parish church.
The coast, closely followed for 24 miles by the Dundee
and Arbroath Joint railway, is low but very rocky,
with a pebbly beach, and shows a series of ancient sea-
breaks some way from the present shore line. The
interior presents for the most part a flat appearance, but
is diversified by the dells of the rivulets, and rises gently to 300 feet at Pitlivie and 457 at the
north-eastern boundary. The predominant rocks are
Devonian. Sandstone of excellent quality for masonry is quarried;
sandstone of the sixty kind, which yields the Arbroath
paving-stones, is comparatively plentiful; and some
exists, but not abundantly nor of good quality.
The soil on the seaboard is sandy; in the central district is
clay or loam; and towards the W and N is moorish.
Rather more than three-fourths of all the land is arable,
and some 600 acres are under wood. The inhabitants
are principally engaged in fishing and agricultural
pursuits, and some are employed in the Panbride bleach-
works. The barony of Panbride belonged for several
ages to the ancestors of the historian Hector Boece
(1465-1530), who himself, however, appears to have been
a native of Dundee; whilst the barony of Panmure
passed by marriage about 1224 to Sir Peter de Maule,
ancestor of the Earl of Dalhousie. Panbride House, noticed separately, is the principal residence; and the
Earl is sole proprietor. Panbride is in the presbytery of
Arbroath and the synod of Angus and Mearns; the
living is worth £235. The parish church, at Panbride
hamlet, is a cruciform Gothic edifice of 1851. At
the E gable is the burial vault of the Earl of Panmure,
created by George, third Earl, in 1651. A Free church
was built in 1856; and two public schools, Muirdrum
and Panbride, with respective accommodation for 50
and 274 children have an average attendance of about
PANHOPE

30 and 225, and grants amounting to over £222 and £220. Valuation (1854) £11,711, 13s. (1893) £12,743, plus £1941 for railway. Pop. (1851) 1888, (1891) 1266, (1891) 1270, (1891) 1218, (1891) 1741, (1891) 1726. To whom 909 were in New Panbride and West Haven; of ecclesiastical parish (1891) 1352.—Ord. Sur., sh. 49, 1855.

Panhope, a bay on the E side of Flotta island, Orkney. Looking towards Burray island, it enters from the SE of Scapa Flow; penetrates 1 mile west-south-westward, with a main breadth of from 7 to 2 furlongs; forms an excellent shelter to fishing-boats, and is denizened by myriads of sea-fowl. The whole island is pierced by several magnificent and very curious caves, the abodes of numerous seals; is indeed a most inviting retreat to fishing-boats; and has excellent beaches for drying fish, which were used for that purpose in the 16th century by a great fishing company. The surface rises at Hoo Field to 115, at Virda Field to 288, feet above sea-level; and is disposed partly in arable land, with a generally fertile soil, partly in common pasture, naturally good, but much injured by maltreatment. Papa Stour was a northern centre of the early Cumbrians, serving as a sort of Iona to Shetland; and retained till a recent period the ancient Norwegian sword dance noticed in Sir Walter Scott's Pirate. It contains the Established church of Papa chapelry, a post office under Lerwick, and a public school. Pop. (1881) 254, (1891) 244.

Papa Stronsay, an island in Stronsay parish, Orkney, lying off the NE of Stronsay island, and separated from it by Papa Sound, 2½ miles broad at the narrowest. With a sound length, and breadth of 2½ miles, it is low and flat, has so fertile a soil as might render it, under proper management, one continuous cornfield; and contains vestiges of two pre-Reformation chapels and the site of an ancient burying-ground. Pop. (1831) 23, (1891) 27.

Papa Westray, an island of Westray parish, Orkney, 14 mile N of the northern part of Westray island, and 2¼ miles in a direct line N by E of Kirkwall, but 23 by the shortest sea-route. Its utmost length, from N to S, is 4½ miles; and its breadth varies between 4 and 1 mile. The surface culminates in North Hill (156 feet), beyond which the northern extremitv forms a bold and lofty headland, the Mull of Papa, well known to mariners, and pierced with a cavern, from 45 to 60 feet wide, and upwards of 70 feet high. The southern half is partly occupied by a freshwater lake, the Loch of St Tredwell (7×3 furl.) on an islet in which are ruins of a pre-Reformation chapel. The soil, to the extent of some 1000 acres, is very fertile, and under regular cultivation. Midway along the E coast is a pastoral islet, the Holm of Papa, which is denoted by the abbreviation P. H. O. The whole island of Papa Westray, with the exception of a small glebe, belongs to a single proprietor, Thomas Traill (b. 1750; d. 1822, with beautif,ful grounds, in Drumoak parish, Aberdeenshire, close to the Dee's left bank, and 1 mile SW of Park station on the Dee-side section of the Great North of Scotland railway, this being 11 miles WSW of Aberdeen. The estate, which was anciently part of a royal chase, was given by David II. to Walter de Moine in the early part of 1348 was by John Moigne disposed of to Alexander Irvine of Drum. It was sold by the Irvine family in 1727 to Mr Duff, and in 1759 to William Moir; and in 1792 for £2000; in 1821 to William Moir; and in 1829 for £28,000 to Mr Kinloch. The present proprietor is James Penny, Esq.—Ord. Sur., sh. 65, 1871.
James Sinclair, who again sold it to Peter and James Young, in whose family it remained till the year 1753, when it was purchased by William Chalmers of Hazlehead, Esq., the ancestor of Mr Chalmers, the present proprietor.

CITY AND CASTLE OF BRECHIN.

Brechin is a royal burgh, formerly the seat of a Bishop, and at a remote period the seat of the County Courts. It is beautifully seated on a rising ground, on the left bank of the Southesk, at the distance of 8 miles west of Montrose, 12½ north-east of Forfar, 26½ north-east of Dundee, and 63½ from Edinburgh. The principal street is about a mile in length. The upper part of the High Street is literally high, while the lower part, being upon the very edge of the river, is apt in rainy seasons to be flooded. Besides the principal, there are a variety of other streets and lanes, lying in every possible direction. In one of these, the College Wynd, formerly stood the ancient Culdee Monastery; and in another, the Hospital of Maisondieu, founded in the year 1256, by William, Lord of Brechin. Upon the whole, the town is well built, and contains a considerable number of good houses; the streets are lighted with gas; and a plentiful supply of water is brought from fountains at a distance, by means of leaden pipes, which were laid down upwards of 200 years ago, by an ancestor of the noble family of Panmure. At the lower end of the town, the Southesk is spanned by a bridge of two large arches, erected in the year 1635, at a cost exceeding 1000 merks. The royalty is very limited, extending only half a

* The name of Brechin is obviously derived from the Gaelic, and is indicative of the situation of the town on a hill. The Romans formed their word Brigantia from it in its native signification, so denominating the inhabitants of hilly countries. *Bria, Breia, Briesa*—these words signify one and the same thing, which is a hill, or a town on a hill. From them we have the word *braw* in our language. There is no city that either beginneth or is terminated in these words, but is always situate upon or near hills."—Irvine's Nomenclature of Scottish History: Montrose, 1817.
mile from the Cross in all directions. In the year 1839, the Municipal constituency was 191, the Parliamentary 232; and, at the general election 1841, the latter was 218. The Parliamentary boundaries of the city, which is in the Montrose District of Burghs, according to the Reform Act, are thus described:—"From the point, on the south of the town, at which the Skinner’s Burn joins the Southesk river, down the Southesk river to the West Den of Leuchland; thence up the Hollow of the West Den of Leuchland, and up Barrie’s Burn, to the point, near the source of Barrie’s Burn, at which the several boundaries of the properties of Caldhame, Pitforthie, and Unthank meet; thence in a straight line, in a westerly direction, to the point at which the several boundaries of the properties of Maisondieu, and Cookston, and Mr Mitchell’s land meet; thence in a south-west direction, along the boundary of the Maisondieu property, to the point at which the same meets the Menmuir Road; thence in a straight line to the westermost point at which the Skinner’s Burn crosses the Forfar Road; thence down the Skinner’s Burn to the point first described."

The town of Brechin is governed by a Provost, two Bailies, Dean of Guild, Treasurer, Hospitalmaster, and seven Councillors. The value of the public property in 1832, including the Town House and School, was £14,765, with a debt of £3284, and a total income of £721, balanced with an expenditure of £709. In 1838-39, the revenue amounted to £816. At one time the town possessed about 1768 Scots acres of land; but the greater part was feu’d off before the year 1770, and, from the low feu duties, the revenue derived from that source cannot be great. There is a Guild and Six Incorporated Trades. The trade of the town is chiefly confined to the manufacture of osnaburghs, sailcloth, and brown linen,—about one third being for the French market. In 1838 the number of looms employed on linen fabrics was 870, being an increase of about a third since 1824. There are also three flax spinning mills, extensive bleaching grounds, a porter brewery, and two distilleries. The weekly market is on Tuesday, with great markets, held on the Trinity Muir, on the third Wednesday of April, the second Wed-
nessday of June, the second Thursday of August, and the Tuesday before the last Wednesday of September, besides a fair or street market in June. There are also branches of the British Linen Company, Dundee Union, and National Security Savings Banks.

In 1841, the population of the town was 4651, of which 2111 were males, and 2540 females, inhabiting 653 houses, with 17 uninhabited and 4 building; at the same time, the Parliamentary burgh contained 3907 persons, of which 2675 were males, and 3232 females, inhabiting 849 houses, while 19 were uninhabited and 4 building.

The public buildings are the Town House, erected in 1789; the Cathedral, with its two towers; the New Church, a fine building with an elegant tower, was erected to accommodate 864 sitters, and finished in June 1836, at a cost of £1100; the Public Schools occupy the lower floor of an elegant Gothic building of two stories, with a handsome tower; while the Mechanics' Institution, which was established in the year 1835, occupies the second floor. This building was erected and finished at Lord Panmure's expense.

The Castle, the favourite residence of Lord Panmure, occupies the site of the old Castle, on the summit of a lofty cliff overhanging the Southesk, on the south side of the town, amid scenery of great beauty, being diversified with wood, open lawns, rocks, and water. The point from which the accompanying view is taken is on the high ground on the south side of the river. It was suggested by his Lordship, and, on being visited, was immediately adopted, as an excellent view is here obtained of all the characteristics of the town. The river here takes a beautiful turn, merging from the trees, sweeping through the arches of the bridge, and again disappearing in the wood, reminding us of the following lines by Cox:

"River, thou goest with song and glee,  
Through the copsed walk cool and the forest shade,  
Through the green-clad vales and the silent glade;  
Amidst rough rocks in ruin piled,  
Thou wanderest on like an innocent child,  
With dance and song, in thy sportive play,  
Over the meadows, away and away!"
In the year 1303, the Castle was a strongly fortified place and offered a powerful and protracted resistance to the arms of Edward I. of England. Notwithstanding every exertion to compel a surrender, the garrison maintained the Castle during a closely-pressed siege of twenty days, and yielded only when their gallant Governor, Sir Thomas Maule, received his death wound. A descendant of this gentleman was created Lord Maule of Brechin and Navar, and Earl of Panmure, in the year 1642, from whom the present Lord is descended. The barony of Brechin and Navar belonged to several different proprietors, before it became finally vested in the noble family of Panmure.

Brechin is the seat of a Presbytery in the Province of Angus and Mearns. The Presbytery consists of the following parishes:—Brechin, a Collegiate cure—patron of both, the Crown; Montrose, a Collegiate cure—patron of the first, the Crown, and of the second, the Town, the people being assessed for the stipend; Maryton or Old Montrose, the Crown; Fearn, the Crown; Menmuir, the Marchioness of Ailsa; Caraldstone, the Earl of Fife, as heir of George Skene of Skene and Caraldstone, Esq.; Lethnot, the Crown; Strathcathro, the Crown and the Earl of Kintore; Edzell, Lochlee, and Farnell—of each the Crown; Dun, the Marchioness of Ailsa; Craig, College of St Andrews; and Logie and Pert, College of St Andrews and the Crown per vices. There are only two chapels in the Presbytery, that of the East Church in Brechin, and St John in Montrose.

Of the parishes which form the Presbytery, Navar was suppressed and annexed to Lethnot, which last was previously annexed to Lochlee; Dunloppy was annexed to Strathcathro or Strockathrow in the year 1618, and by the former Lord Kintore is joint patron of the united cure. Before the Reformation, the church of Strathcathro was the benefice of the Chanter of the Cathedral of Brechin. Balfour, chiefly in the Mearns, was annexed to Edzell; Kinnaird partly to Farnell and partly to Brechin; Logie-Montrose to Pert, the advowson of the former being in the College of St Andrews; Hedderwick to Montrose; St Skaoch, or Duninale, and St Fergus to Craig; and Auldbar partly to
Brechin, but the largest part to Aberlemno, in the Presbytery of Forfar. An Episcopal congregation has existed in Brechin since the Establishment of Episcopacy in Scotland. The present titular Bishop of the See of Brechin is the Right Reverend Alexander Penrose Forbes, D.C.L., who officiates in Dundee.

THE CATHEDRAL.

The Cathedral of Brechin is supposed to have been founded by David I., in the year 1150, and dedicated to St Ninian, a Culdee. It was a stately Gothic fabric, but seems never to have been completed. The present Parish Church, which was renovated in 1808, was the nave of the Cathedral. The length, which must be held as including that of the ruins at the east end, is 166 feet, by 61 broad. At the north-west corner there is a huge square tower, with a spire, the whole being 128 feet in height. The lower floor of the tower, which is used as the Session and Presbytery House, has a lofty and beautifully groined ceiling. At the south-west corner of the church there is an antique round tower, built of sixty courses of masonry, to the height of 80 feet, covered with an octagonal cone of 23 feet; the diameter over the walls at the base being 16, gives a circumference of about 48 feet. The door is 6 feet high by 2 wide, and the sill 6½ feet from the ground. There are four windows facing the cardinal points at the top of the tower, and other four in the cone above the cornice. Figures, having a religious reference, are sculptured on both sides of the door. The use for which these towers were erected has not been satisfactorily ascertained. The only other tower of the same description in Scotland is at Abernethy.*

* Similar round towers in Ireland have been supposed to belong to the ninth century, and are called Clock-towers, or House of the Bell—Order's Antiquities. "Bells," according to Whitaker, "were used by the ancient Romans to signify the times of bathing, and naturally applied by the Christians of Italy,
mer months, from sunrise to sunset during the winter, and from 1 p.m. on Sabbaths.

"THE MUCKLE MARKET."

On the first Tuesday after Whitsunday and Martinmas the citizens turn out as they never do on any other occasion. The streets in the upper part of the town are filled with vendors of toys, show men, cheap Jacks, mock auctioneers, etc. The latter have a heterogeneous mass of remnants from Manchester, damaged gingham from Glasgow, deteriorated hardware from Sheffield, jewellery and watches from Birmingham—

A bonnie fashionable watch,
Turning on a braw carbuncle,

and the refuse of warehouses from everywhere, offered to a "discerning public" as an elegant assortment of new and fashionable goods, bought for cash under the most favourable circumstances. The street auctioneer, railroad, penny postage, and parcels post have forced the ducie, canny Scottish pedlar to lay aside his ell-wand and pack. Country people crowd into the town from every district, while, during the afternoon and evening, the inhabitants throng up, and the noise and crowd increase—the shouts of the boys, the firing of pop-guns, the clanging of gongs, the bellowing of showmen, the squeaking of penny trumpets, and the sound of fiddlers, pipers, ballad singers, and German bands, all playing and singing different tunes, and the boisterous love-making of Jocks and Mags. Such is Brechin "Muckle Market."
The day after is known as "Little Wednesday"—at one time well named as far as the amount of work done by many on that day was concerned. Not a few required until the "Tarinty,"—a market held at the Trinity Muir, about a mile to the north of the town, a fortnight after—to recover their equilibrium.

The weekly corn and provision market day is Tuesday. The butter market is held in the old flesh market off the High Street. In that place a plentiful supply of eggs, cheese, poultry, &c., can be regularly had, while the general market is held at the Cross, where the citizens are well supplied with vegetables, fish, pigs, crockery, clothing by travelling remnant dealers, and drugs by spouting quack doctors.

Brechin used to be famed for its Horse Markets, which are held annually during the Tuesdays in February and March, and were well attended and much business transacted; but, with a few exceptions, and owing to weekly auctions, they have dwindled down to several attenuated hacks. A weekly Cattle Market is also held during the Tuesdays of autumn and winter, in Market Street. A wool fair, established 1849, is held in the town on the Monday after the second Thursday of July.

TRINITY MUIR AND ITS MARKETS.

The fairs at Trinity Muir are—3rd Wednesday of April, cattle; 2nd Wednesday of June, sheep; 2nd Thursday, cattle; 2nd Friday, horse; August, 2nd Thursday, sheep, cattle, and horse; September, Tuesday before last Wednesday, sheep, cattle, and horse. These markets are still fairly attended by dealers from all parts of the country, but Thursday is the day on which the market is patronised by the greatest number of Brechiners—there being almost a general half-holiday in the town. In 1851, the grassy mounds were levelled that were at one time used for seats in the market tents, and stones inserted in the ground, with numbers attached, to point out the
Through thick and thin I make my way,
Measuring out a weaver's day
Of fourteen hours' duration.
The introduction of power-loom weaving has provided better and more remunerative employment, and these feted, damp-smelling shops, are now in most instances, converted into comfortable rooms, and the success that has hitherto attended our enterprising manufacturers still increases, and depression of trade is seldom known.

In 1853 Messrs J. and J. Smart, Valley Works, erected a few machines for the purpose of winding the yarn used by the weavers, which were driven by a small steam engine. Shortly after a larger engine was substituted, and the power-loom was introduced into Brechin. In the same year the premises were extended. The firm commenced with 24 looms. In 1856 the number was increased to 48. Entirely new and commodious premises were erected. In 1864, which accommodated 96 looms, and the original plan of a building for about 300 looms, with finishing and other accommodation was completed.

In 1864, Messrs D. & R. Duke, who had previously employed from 600 to 700 hand-loom weavers, laid the foundation of Denburn Linen Works. Commencing with 200 looms, they have now about 560. The whole buildings are very handsome, are of the most approved style, have a frontage of 200 feet in length, and are 4 storeys in height. At the western end is a handsome tower, 75 feet in height. Nearly 700 hands are now employed at the works.

Messrs Lamb & Scott, who had carried on an extensive trade in hand-loom weaving for upwards of 40 years, erected in 1865 their large power-loom factory—Caldham Works. They began with 150 looms, but in the succeeding year an extension was made, and other 50 added, while recently the number of looms has been increased to 500. The buildings are now in course of being still further enlarged. About 680 hands are employed.

The East Mill Company are proprietors of the Southesk Bleachfield, and carried on the spinning and bleaching of yarns to a considerable extent for many years previous to 1857, when their spinning premises were doubled. It has been calculated that the length of yarn spun per week is 132,793 miles, or rather more than would go round the world five times. The Bleachfield Works are now enlarged, and the whole employ about 800 hands. The East Mills originally consisted of a corn grinding mill, and a mill for scutching or cleaning flax. The scutching mill was converted into a mill for spinning wool, but that not succeeding, it was altered into a mill for spinning flax, and was gradually added to by different companies, till it has attained its present gigantic proportions. Mr Colin Smith, of the original firm, was a partner in the house of Smith and Sons, general merchants and bankers in Brechin. The junior partner, Mr Patrick Wilson was a bookseller. Smith & Wilson, as was usual at the period, issued a quantity of half-pence, of less intrinsic value, of course, than the heavy copper coinage of the period. These half-pence bore the date 1806, with the words, "East Mill, Brechin," and a representation of the mill of two storeys high on the one side; and on the other "Payable by Smith and Wilson," with a very neat representation of the steeples, and below them the word "Church." Mr Wilson called in and paid up the coinage in that of the realm, so that these "Breachin Bawbees" are only now to be met with in the repositories of the curious.

The Inch Bleaching Company have also during the past few years added to their buildings and machinery, and give employment to about 200 hands.
county. There was also an infant daughter Martha. My eldest brother, Maurice, and the next, Henry, were mostly away from home during my childhood, working with friends of my father. The next boys, James, and Robert Barrett, and a sister, Mary Ellen, with myself and the infant daughter, Martha, constituted the domestic circle. As a tradesman with a fair connection and a Freeholder in the parish, my father was enabled, by hard work (which was shared by all who were able), to live in comfort, but there was never anything to spare.

I have already mentioned that epidemic diseases were frequent and fatal. As an instance, as far back as I can remember, I remember being in bed with my brothers James and Robert, when I was hurriedly taken out of bed and carried away to a cottage several miles distant by a friend of my mother's. I did not see my home again for a long time, six months, as I was told afterwards. When I was brought home again my playmates were gone. Black fever had almost emptied the house. I have often heard my mother relate the incident, how the fever had been some time in the village and that my brother James, who, being the eldest at home, had caught the infection, and that my mother's friend had come over to give what help she could. Having no children of her own she declared that Willie, that is me, should not die if she could help it, so her noble instinct prompted her to take me out of bed and away from the infected village to her own home. As I have said before, during the time that I was away my four brothers and sisters had all died and I was the only one that remained of five. As time went on, other children came to replace those who were lost, Robert Barrett, named after his dead brother, George Thomas and Alfred. The last was born in my mother's fiftieth year. Amongst those who might be termed the second family I was the eldest and, after a few years attending school, such as it was, and within reach of fourteen years of age, I had to go into the workshop and begin to do my part.

At the time of which I write, that is between 1830 and 1840, the means of educating the ordinary village children was of the poorest description. I myself went to a Dame's School for some years. I well remember trudging along, morning and evening, along a green lane, in company with a number of others, for a distance of about a mile to one of those venerable village dames, noted more for keeping the pupils out of mischief than for her ability to teach anything beyond the mere rudiments of learning. I distinctly recollect, one gloomy afternoon, my mother coming to the school and vaccinating myself and several others. She performed the operation by means of a darning needle, working three holes in the skin of the arm by the point of a needle and then with the other end of the same instrument, taking some matter from the arm of another child after his dead brother, George Thomas and Alfred. The last was born in my mother's fiftieth year. Amongst those who might be termed the second family I was the eldest and, after a few years attending school, such as it was, and within reach of fourteen years of age, I had to go into the workshop and begin to do my part.

... offering in the Colonies. The gold discoveries in Australia also were attracting much attention at that time in England...
KIRKCALDY.

On Sunday unintermitted rain was introduced in the annual Games in Kincardine Church, in accordance with a decision the previous day to the majority of the Kirk-Sessions.

TOWN-COUNCIL.-A meeting of the Town-Council was held in the Council Chambers, and Mr. Gourley made the Council petition Parliament in favour of Mr. Hunter's Bill for Free Education for the Poor of Kirkcaldy. The petition was agreed to. Mr. Speirs, the Town-Clerk, stated that he had received a letter from London, in which it was incidentally remarked that work had been held in high esteem for his skill as well as for his gentle and gentlemanly ways. His wife died about three months since, but three orphan boys, by her will, are now under the care of the Archbishop of Canterbury for the cause of death, we believe, was debasement.

Body WASHED ASHORE.—The body of a sea-faring man mutilated and almost entirely impossible, was washed ashore on Monday at the Isle of May. It is probably the remains of the ill-fated men who perished with another at the wreck of the Norwegian schooner "Newcastle Packet" a few weeks ago. As a rule the dead on the islet are landed for interment at Crail, if not in the town, but on this occasion the body was delayed till the fair was over, when it was hurriedly interred at Kirkcaldy.

AUCHTERMUCHY.

SUDDEN DEATH IN CHURCH.—On Sunday evening a very pious old man, who had been a member of the church for many years, and one of the members, Mr. William Crichton, town officer, had just finished ringing the bell which was a part of the bell-ringing service. He was leaving the church when he suddenly fell, and was hurriedly removed to the house of worship, where he had been told to be merely suffering from a fit of breathlessness. He was attended to by several physicians, and was declared to be out of danger. The family, however, were much alarmed, and he continued to be in a state of anxiety. His death was reported to be due to a sudden attack of apoplexy, and he was immediately removed to the hospital. He was a member of the church for many years, and was much respected by his friends and neighbours. His death was a great shock to his family, and the congregation was much distressed.

BURNTISLAND.

COAL SHIPMENTS were less active during last week than for some time past. Thirteen vessels in all left with cargoes, six of them being from this port. The total tonnage shipped was approximately 9997 tons, as compared with 13,414 in the corresponding week of last year—a decrease of 3476 tons. 4576 tons of coal were shipped. A report from the Amalgamated Sailors and Firemen's Union of Great Britain and Ireland has been established in this port, and it is expected that an advance in the wages of crews of vessels will be made.

NEWPORT行ったON.—No reports of any interest were received from this port this week.

LARGO.

ORGAN FOR THE PARISH CHURCH at Cupar was installed on Saturday night. Mr. Muir said that a memorial stone would be placed in the church as a mark of respect to the memory of the late Mr. John Davidson, who was a member of the congregation for many years, and who had done much to promote the interests of the church. The new organ is said to be one of the finest in the country, and is expected to be of great benefit to the congregation.
In the Free Church on Sabbath afternoon. The brethren, with the depositions of Mr. David Young, of Dunfermline, and Mr. W. M. Ross, of St. Andrew's, were present, and a number of other witnesses were examined.

The Rev. Dr. Gray, of Dunfermline, gave an able address on the subject of the late Mr. Low, and the services of the church were concluded with the prayer of the Rev. Mr. Forbes, of St. Andrews.

The Ladies' Society for the Promotion of Temperance and Benevolence held their regular meeting on Monday evening at the Free Church. A large attendance was present, and the meeting was conducted in a most interesting manner.

The Rev. Mr. Moir, of St. Andrews, read a paper on the subject of "The Influence of Education on Society." He showed that education should be made a matter of public concern, and that the schools should be properly provided for the wants of the people.

The meeting was closed with a prayer by the Rev. Mr. Forbes, of St. Andrews.

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ANSTHRURTH.

A NEW GAZETTEER.—At a meeting of the Commissioners of the Survey and the Tuesday, the Bishop of London, the Rev. Mr. Williams, President of the Dundee and District Mill and Factory Operators' Union, took his seat. It was then moved, seconded, and carried, that the meeting was to proceed with the business of forming a new committee to meet the views of the members of the Union. The meeting then adjourned.
care so cupid that okay, well not
assume what has been of late year
the nearest of share.
Several rounds of fire were fired from the 4 guns in an attempt to make a breach in the wall, but none was effective. Several of the gunners were killed or wounded. The x x oo, the commanding officer of the battery, was severely wounded in the leg. The 2nd battery, under the command of Colonel Thomson, was ordered to move out to the railroad to begin firing at the enemy. Col. Thomson, I am told, was killed in this engagement.

The 3rd battery, under the command of Colonel Thompson on Saturday night, was ordered to occupy the position of the 1st battery, which has been a hotly disputed point. The 4th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 2nd battery, which has been a hotly disputed point.

The 5th battery, under the command of Colonel Thompson, was ordered to occupy the position of the 3rd battery, which has been a hotly disputed point. The 6th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 4th battery, which has been a hotly disputed point.

The 7th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 5th battery, which has been a hotly disputed point. The 8th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 6th battery, which has been a hotly disputed point.

The 9th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 7th battery, which has been a hotly disputed point. The 10th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 8th battery, which has been a hotly disputed point.

The 11th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 9th battery, which has been a hotly disputed point. The 12th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 10th battery, which has been a hotly disputed point.

The 13th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 11th battery, which has been a hotly disputed point. The 14th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 12th battery, which has been a hotly disputed point.

The 15th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 13th battery, which has been a hotly disputed point. The 16th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 14th battery, which has been a hotly disputed point.

The 17th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 15th battery, which has been a hotly disputed point. The 18th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 16th battery, which has been a hotly disputed point.

The 19th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 17th battery, which has been a hotly disputed point. The 20th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 18th battery, which has been a hotly disputed point.

The 21st battery, under the command of Colonel Thomson, was ordered to occupy the position of the 19th battery, which has been a hotly disputed point. The 22nd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 20th battery, which has been a hotly disputed point.

The 23rd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 21st battery, which has been a hotly disputed point. The 24th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 22nd battery, which has been a hotly disputed point.

The 25th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 23rd battery, which has been a hotly disputed point. The 26th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 24th battery, which has been a hotly disputed point.

The 27th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 25th battery, which has been a hotly disputed point. The 28th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 26th battery, which has been a hotly disputed point.

The 29th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 27th battery, which has been a hotly disputed point. The 30th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 28th battery, which has been a hotly disputed point.

The 31st battery, under the command of Colonel Thomson, was ordered to occupy the position of the 29th battery, which has been a hotly disputed point. The 32nd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 30th battery, which has been a hotly disputed point.

The 33rd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 31st battery, which has been a hotly disputed point. The 34th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 32nd battery, which has been a hotly disputed point.

The 35th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 33rd battery, which has been a hotly disputed point. The 36th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 34th battery, which has been a hotly disputed point.

The 37th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 35th battery, which has been a hotly disputed point. The 38th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 36th battery, which has been a hotly disputed point.

The 39th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 37th battery, which has been a hotly disputed point. The 40th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 38th battery, which has been a hotly disputed point.

The 41st battery, under the command of Colonel Thomson, was ordered to occupy the position of the 39th battery, which has been a hotly disputed point. The 42nd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 40th battery, which has been a hotly disputed point.

The 43rd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 41st battery, which has been a hotly disputed point. The 44th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 42nd battery, which has been a hotly disputed point.

The 45th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 43rd battery, which has been a hotly disputed point. The 46th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 44th battery, which has been a hotly disputed point.

The 47th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 45th battery, which has been a hotly disputed point. The 48th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 46th battery, which has been a hotly disputed point.

The 49th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 47th battery, which has been a hotly disputed point. The 50th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 48th battery, which has been a hotly disputed point.

The 51st battery, under the command of Colonel Thomson, was ordered to occupy the position of the 49th battery, which has been a hotly disputed point. The 52nd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 50th battery, which has been a hotly disputed point.

The 53rd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 51st battery, which has been a hotly disputed point. The 54th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 52nd battery, which has been a hotly disputed point.

The 55th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 53rd battery, which has been a hotly disputed point. The 56th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 54th battery, which has been a hotly disputed point.

The 57th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 55th battery, which has been a hotly disputed point. The 58th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 56th battery, which has been a hotly disputed point.

The 59th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 57th battery, which has been a hotly disputed point. The 60th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 58th battery, which has been a hotly disputed point.

The 61st battery, under the command of Colonel Thomson, was ordered to occupy the position of the 59th battery, which has been a hotly disputed point. The 62nd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 60th battery, which has been a hotly disputed point.

The 63rd battery, under the command of Colonel Thomson, was ordered to occupy the position of the 61st battery, which has been a hotly disputed point. The 64th battery, under the command of Colonel Thomson, was ordered to occupy the position of the 62nd battery, which has been a hotly disputed point.
blood than would belong to a fox, and said, "Surely they have killed a sheep". I jumped off and smelt the blood and it was not fox. After blowing for some time, thirteen couple came to me, all from the bottom of the hill. Jack Capel said to me, "I see something at the bottom of the hill in a ditch; it looks like a dead fox." After pointing it out to me, I said, "It's not a fox," and we started to scramble down the hill. It was very steep and we had great difficulty in getting down. We found "Matron" dead, lying on her back, and her belly and legs looked as if they had been riddled with shot. She had been worried by the other hounds and the holes were caused by the hounds' tushes. She was quite stiff, and the hounds just put their noses under her and turned the body over. Probably the fox had got to ground about top of hill and "Matron" had gone in after him, and they had all rolled down the hill together fighting. For some days afterwards the hounds were very unsettled and quarrelsome.

I sent hounds home to Cowdenbeath with George Palmer and Capel. I went and dined at Dron with J. Richmond. Gordon drove me into Perth to catch the night train. I slept at Edinburgh, and went on to London next day.

31st December, 1887.—From the Fife paper:­

"The Fife Hounds met at Largo on 14th December, and found in Pitmuir Hill. The fox started through Kielsden and Balcormo Wood, and through a flock of sheep, and on to Bonnyton Wood, crossed the road south of Teasses Toll, the hounds rattling him along at a killing pace. Leaving Greenside and Cassindilly to his right, he crossed the old deer park of Struthers, and leaving Chance Inn to his right, he ran through the Tomb Den, and over the Pitlessie road, through Crawford Priory policies, crossed the River Eden, and running north he entered a big culvert running under the railway embankment, which was big enough to let the hounds in, and they soon pushed him out, and he pointed for the Eden again, but doubled back and ran through Springfield Wood, jumped the wall, when one hound spied him, then another, and another, and all was up but shouting. But crossing the railway in front of an approaching train, which necessitated the hounds being stopped until the 'Iron King' had sped by, gave him an extra lease of life; but the hounds were quickly on his line, racing him like a pack of ravenous wolves, with their 'hackles' standing on end like porcupine quills, through Crawford, and over the road to the Tomb Den, where they rolled him over just as he scrambled over the wall. Then what a scene! The Colonel pops over the wall, with a face wreathed in smiles, and the stiff and lifeless body was taken from the hounds and hung on a branch of an adjoining tree, and Jack Shepherd, with a most determined and cutthroat appearance stamped on his features, takes his knife and severs the head and brush from the body, and then with a ringing whoop the Colonel throws his lifeless form to the yelping curs around him. 'Whoop! Tally-ho! loo-loo-loo!'"
REMINISCENCES OF going to Norfolk Hounds. Mr. Fountaine (Di Follett's brother) is master.

Friday, 22nd March.—Meet at Three Pots Inn; drove on. I rode Mr. Foxwell's nice brown mare, good hunter with pleasant manners and good mouth; J. A. T., big bay horse of Mr. Drackley's; had been steeplechased the week before; behaved like a demon and ran away all day. Drew Burbidge Wood; crowds of stockingers, who greeted father with "Ullo, Captin, got back to your hold 'aunts, ave yer! Could not we drink yer 'ealth this fine morning?" Very large field. Nettie Townsend and her father, Mr. Jack Follett and Hugo Haig, Mr. and Mrs. Young (Green T.'s sister), etc. Three Pots spinneys blank; Woolvey blank; Attlebury blank; Lindly blank. Too disgusting and disheartening. Horrid jogging day on a most uncomfortable and tiring saddle. We at last ended at Caldecot, where we had tea and saw some of their beautiful rooms and the electric lightings thereof, and drove home in a more cheery state. How I hate a blank day. Lady de Clifford dined at Cliff. Cribbage as usual.

Saturday, 23rd March.—Meet at Corley. Father rode "Fairy," I "Harbinger," very fresh. Mr. Pierrepont rode a horse with a silver tube in its throat for roaring. We all, Mr. and Mrs. Oakeley, Ted and Cis, Mr. and Cis Callender, father and I, drove on to Arbury; lovely old place, belonged to Rosie's godfather, Mr. Newdegate. Got on our horses there and trotted on to Corley, the meet. Crowds of Charity School children in uniform, straw hats and aprons. Found a lame fox, a very pretty find. Fox ran snapping past H. Callender and J. A. T., who said, "He don't go right". One of the hounds actually had hold of him as he bundled into a hole, and so just saved himself. They then proceeded to dig for the poor little thing while the pack went to draw again. Found another fox, who made a line for the next wood. Cut off a corner of ploughed field. Huntsman all wrong. Wrong side and wrong way. Bucketed along road; no good. After some time they let the bagged lame fox out. Most disgraceful proceeding. Enormous yelling crowd of running boys and men. Fox let out miles away from pack. General scuffle getting out of wood after them. "Harby," quite wild with excitement, plunged and rushed at a nasty blind ditch. Cis Oakeley just in front of me, so had to pull him rather to the left. He quite lost his head, and apparently never even noticed a horrid strong binder, so down we both came, on his right side. I of course hung, notwithstanding my safety skirt, but comforted myself that it must break directly and that I should then be free. But not a bit of it. I had, out of youthful folly, substituted lace instead of the orthodox tabs and buttons, and the consequence was that the lace (a champion) held me suspended upside down like a huge pendulum. "Harbinger" behaved like an angel, and only jogged slowly. Had he chosen to gallop, I must have been smashed, probably killed. He trod on my hand and knocked my mouth with
his hind leg. I kept on wondering how long it would last and how much I should get trodden down before any one would come. It all seemed such ages. I must have looked too ridiculous for words, walking on my head and hands backwards, being buffeted forwards by "Harby's" hind feet and back by his front legs, while my feet were perched proudly on the saddle. Every one thought it was a dangerous accident, consequently most of the field stopped and Mr. Rowley Beach and another gentleman came to my rescue. I said, "It is no use trying to lift me, please undo my habit!" By degrees I was let down and felt very jumpy. After many struggles and kicks I was hoisted on to poor old "Harby's" back again, and we pursued the fast vanishing hunt. Through Corley again and they eventually killed. "Harby" pulled and plunged like a demon, in fact his fall has hopelessly demoralised him. Found again at Cowlees, through Arbury, fox in view for one field, ran through Annesley Park, Stockingford.

Tuesday, 26th March.—Cliff, Atherstone. Pack ed, etc.; early lunch. Drove in hired fly to Nuneaton; went by train from there to Leamington, where we had to change stations and wait hours. At last we reached Swindon and put up our horses at Deacon's while we went to the Goddard Arms, a most charming and comfortable hotel.

Wednesday, 27th March.—Up early and left Swindon by the 8 A.M. train. Just as the train was moving father received a wire from the Duke to say they would wait for next train. However it was then too late to change, so off we went. Got out at Daunsey and went to the inn where we waited hours. We got on our gees, I on "Fairy," father on "Harbinger," and dawdled down to the meet at "Swallets Gate," the same place where they met 22nd February, 1871, the day of the Great Wood run. The first people we met were Colonel and Mrs. Helm. Nelly and Captain Atherley, Colonel Peter Miles and two or three others were all we knew at first. After hours of weary waiting, Lord Worcester trotted up with the hounds, followed by the Duke and most of the field. We all proceeded to draw a gorse. "Fairy" awfully fresh and peacocked along and was much admired by the Duke. Father committed me to the care of Tom Morgan, Captain Spicer's huntsman, who told me a good deal about Vincent, etc. Drew gorse; chopped fox there. Found Great Wood; fearful ride. Henry Baker (Hardwicke) came and talked to us. Good run; killed at Webb Wood. Followed Lady Cholmondeley. Drew Dauney Strips; did not find. My hat came off. Lord Dangan lent me his pin. We arrived at Chippenham and joined Nay and drove to Badminton, leaving our horses to follow with Henderson. We got to Badminton about seven. The Duchess came down the passage to welcome us saying, "How glad I am to see you". She took us into the ante-drawing-room, where we chatted, and then took us upstairs and into my room. Then I and Nay unpacked and dressed. Dinner very late, about nine. The Duke took me in. Mr. Holford
To treat of living and working conditions among Dundee's textile workers is, perhaps, to make a distinction without a difference. True, for most workers, there was a life lived inside the factory and a life lived outside of it, and these could be separately described. In determining the general quality of life, however, living and working conditions were symbiotic; the industry an encasing and uncomely iron-lung.

The artificiality which follows from a no doubt convenient methodological separation of living from working conditions is most obvious in the case of domestic workers employed by the industry. Sack sewing in the home called for a degree of self-discipline no less severe than the enforced discipline of the factory. The odour of jute filled the houses of sack sewers just as pungently as it did the weaving sheds of employers. The needle used for sewing could be just as cruel to the hands of sewers as jute fibre was to the fingers of spool and cop winders.

Female workers in some mills were required to lift unassisted a "load of sixty pounds" but only over short distances. Female sack sewers carried bundles of sacks between home and factory and a bundle weighed from 60 to 68 lbs. In the home, a sack was not only the unit of production but an item of furnishing. Sacks kept out the cold in the ramshackle beds of domestic workers and, as makeshift screens, they gave a little privacy in rooms occupied by parents and grown-up children alike.

Where jute products were taken into the home, the distinction between living and working conditions was blurred. Yet the regimen of jute could be as dominant in the lives of those who were not out-workers. The Dundee Social Union deplored the "ignorance of the workers regarding the dietetic values of foods", but the point was academic for workers who were obliged to use their lunch break to clean dust from machinery while at the same time trying to consume a meal. What the Social Union called the "proper preparation of food" inevitably left much to be desired in a city where mothers lived from 6 a.m. to 6 p.m. in a factory. The cost of living in Dundee was unusually high and one reason for this may have been injudicious purchasing. But Dundee women hardly had the leisure to learn the art of shopping.

It was the view of the Social Union that not a little disease in Dundee sprang from the presence of slum properties with "sanitary accommodation of a very defective kind". The historian could also instance the calculation of the city's Medical Officer that insanitary dwellings accounted for one-quarter of the deaths in Dundee each year. The contribution of insanitary homes to mortality would need qualification, however, given the existence of mills with lavatories "dry and in shocking condition . . . only two provided for 300 women".

In reporting on housing conditions in the city, Social Union investigators felt compelled to mention the "dread of open windows" which prevailed among workers. Walter Walsh was another strong advocate of the

1. Scottish Prohibitionist, 30 Apr. 1910, contains a popular piece on domestic sack sewing which is extremely useful.
2. In the late 1920's John Sime had a major triumph in inducing the factory inspectorate to undertake a special enquiry into weight-lifting in the Jute and Allied Industries. See Annual Report of the Chief Inspector of Factories and Workshops 1920 (London, 1931), 105-11.
3. Lennox, op. cit., 190.
"fresh-air-habit". But at home, as at work, fresh air was hard to find. Where windows in slums overlooked what were euphemistically called "ash-pits", it is not surprising that windows were closed against a stench described by the occasional Social Union visitor as "appalling". Nor were workers introduced to the bracing advantages of fresh air by their experience in the mills. As late as 1902 one factory inspector reported that in Dundee the "sickly odour of jute seems to demand a better system of ventilation ... . It is a common circumstance for a young person when first employed . . . to contract a certain peculiar complaint called 'mill fever'". Two points are perhaps fairly clear. The causes of working-class disease and distress arising at home or at work were normally so enmeshed as to defy unravelling. Or they were simply the same causes present at home and at work.

The physical environment of jute production (and this needs to be stated) was no worse than in textiles elsewhere in Britain, and no more injurious than conditions in other industries. The very large Dundee mills built by the city's very wealthy families were monuments of civic and commercial pride, erected certainly with a view to efficient production but with an eye to the comfort of workers. In the 1860's an expert observer reported:

"The recently built mills have been constructed ... with every modern appliance for the physical comfort of the operative . . . . Some of the new works . . . are most imposing structures, palatial in appearance, colossal in extent, and, in durability, magnificence, or comfort, unsurpassed by the mills in any other town in the kingdom, or . . . any country in the world."

Of course it could be argued that the architectural impressiveness of Dundee mills may be little guide to the morale of those who worked in them. Equally well it might be insisted that standards of building and of comfort are historically relative. The fact remains that leading Dundee jute firms were responsive to the recommendations of factory inspectors, and careful of conditions on their premises. The majority of employers, unfortunately, did not have the capital, the sense of prestige, or sufficient interest to bring their standards up to the level of Dundee's leading magnates. In a report of the Royal Commission on Labour, it was told of one jute company employing more than 1,000 females, that ventilation was "capital", and that lavatories were "excellent", being "tiled throughout and thoroughly ventilated and flushed". The same firm had "Electric lighting" which was "much appreciated by workers". Another large jute firm boasted "Excellent work rooms, lofty, well lit, thoroughly ventilated, water taps and sinks provided." With great innovation this company had a "Recreation hall and gymnasium", a "dining room", and a "Musical and dramatic society" all of which were under the control of workers. There were other mills which presented a very different picture of "Sheds very close, low in the roof, and overcrowded", with dust "very bad" and "Effluvia from lavatories." Not all Dundee mills fitted the satanic description, and in no Dundee mill did the preparation and processing of jute fibre lead to spectacular disease like the "phossy jaw" common among match workers, or the colic, convulsions, "wristdrop", blindness and paralysis risked by workers in paint manufacture. Factory inspectors in the late nineteenth century were disturbed that jute dust contained "silicious matter" and that some

1. Ibid., xi.
jute bales harboured "the bacilli of tetanus". Modern research, however, tends to the conclusion that jute is harmless and, while modern research is conducted in mills with modern ventilation, there is no obvious reason to suppose that in itself jute dust was more than an irritant which, at worst, probably increased the chances of droplet infection.

It was not so much the physical conditions in which jute was produced, but the labour employed in producing it, which accounts for the misfortune of the city and its workers. Factory conditions no more than typically bad and in some cases better than was conventional, became pernicious where jobs were commanded by married women. The employment of children and young persons was also regarded as baneful, although the evidence here is less firm. In any event, the two subjects to which social investigators gave major attention were child labour and its relation to physical retardation, and the employment of married women and its consequences for Dundee's infant mortality rates.

Quite apart from employers and parents who had a vested interest in child labour, support for juvenile and half-time employment came from many and perhaps some surprising sources. As president of the Dundee Mill and Factory Operatives' Union, Henry Williamson did not deprecate but championed child labour. The Dundee Trades Council has left no record of its opposition to the practice. Represented on the Dundee School Board, the Catholic Church followed a policy of leniency in the granting of school exceptions, and was no doubt sorely pressed to do so by Catholic parents.

In 1883 a writer in the Dundee Advertiser reported on half-time employment as conducted in the firm of Baxter Brothers. The choice of firm was a wise one, for it ranked high in the league of enlightened Dundee employers. This hardly excuses, however, the manner in which the writer was carried away:

"As to the whole question of the employment of half-time children I will venture an opinion ... If children must be employed, this is the best way I know of their being so, as the work is light; the pay in just proportion; and best of all, their education is provided for. They are placed at once on the high road to industry ... and they receive ... the golden key of life in the elements of education. How unspeakably happy the condition of the working children in dry and comfortable atmospheres at work which challenges without overstraining ... which has room for smiles and laughter, compared to that of the dirty, neglected child of careless or drunken parents, with the street for a playground, and a troop of rude companions."[1]

This passage is not remarkable for its suspicion of street-play, nor for its expressed belief in the value of an early introduction to work discipline. Both were endemic in Victorian Britain. But the claims made for half-time education, that "the girl or boy" as the writer put it, "may ultimately pass into University College" and that this was "the peculiar glory of Dundee", merely invited amusement in a commentary otherwise interesting. Clearly, to the writer, the work performed by children was not onerous. The work was "shifting", that is, the removal of full bobbins from the spindles of spinning frames and their replacement with empty

3. Minutes of the Dundee School Board (Dundee, 1897), 332.
4. There are no surviving archives of the Dundee Trades Council, and the views of that body could easily be misrepresented. The Trades Council did not, however, record any objection to child labour during the sittings of the Royal Commission on Labour, nor on any other occasion which the writer can discover. What is more, the Trades Council was criticized in 1891 in the Piper O' Dundee for having allowed Williamson to project himself as the spokesman of labour on the half-time question.
5. Quoted in Dundee Year Book 1884 (Dundee, 1885), 59-60.
NESTLING; NESTY; NET; NETH.

NEITHER. See Nest; Nestie; Neat, N't, n'1; Neath; Naither.

NEITHER, n. Also neither, nedder (Sc. 1880 Jam.), -er, -ir. The adder, Vipera berus (Sc. 1825 Jam.; Cai. 1907 County of Cai. (Horne) 399, Cal. 1964); fig. an ill-natured or irritable person (Uls. 1924 Northern W'ks 21 (Jan.).) See also Errum, n. For comb. nether's, neb, see Neb, n., I., Combs. (7). [n'e'der, -'ner-']

Knr. 1895 H. Haliburton Dunbar 60: The day—it's stinging like a nether.

Ags. 1920 A. Gray Songs 17: I saw your hert, wi' channerin' nedders there.

Cai. 1932 Edb. John o' Groats Lit. Soc.: What if we lifted a peat with a "hairy brothag" on't, or worse still—a "nether"?

[O.Sc. neddyr, id., c. 1450, O.E. neadre.]

NEITHER, adj. adv. Also n(e)ither, nither; nedder, nieder (Jam.). Sc. forms and usages. [n'e'der, Abb. +'ned-']

I. adj. Lower, under (Sc. 1710 T. Ruddi
dam Gl. in Douglas Aeneis, nither, nick, 1808 Jam., nither; Sh. 1866 Edm. Gl. 1914 Angus Gl., nedder; Ff., Lth. 1896 Wilson Cent. Scot. 256; Bkw. 1942 Zai; I. and ne.Sc. 1964, nedder), Now mainly in place-names, of the lower-sited of two roads, farms, etc., e.g. Netherone, Nethergate, Nether Mains, etc. Only liter. when applied to things in English.

Feb. 1715 A. Penneucik Tweeddale (1815) 171: An herds house called Blair-Bog, and then Romanno Grange, over and nether.


Wgt. 1747 Session Bk. Glasserton MS. (1 March):

Jannet McCandlish, housekeeper to William Credie in Nether Arm.

Abd. 1851 W. Anderson Rhymes 121: At the nethergate wall.

By St Mary's aisle.

Keb. 1895 Crockett Moss-Hags II.: They urrove the nether rope and drew little Margaret up to the bank.

Sc. 1826 H. McDairmid Drunk Man 2: But since I get them there I'll whumle them.

And soose the craturis in the nether deeps.

Or. 1955 N. Scotland 91: The spaces in the old settlement pattern were filled with a multiplicity of small units, some of which took the name of the old township and added a prefix to indicate the different site. Easter or Wester, Nether, Mid or Upper are common all over the region.

Craig-Brown Hist. Slk. (1886)

NESTIE, adj. adv. Also natty, bit, neat, mid, neat

NESTIE. See Nest; Nestie; Neat, N't, n'1; Neath; Naither.

NESTLING, v. To rummage, poke about in.

Keb. 1815 J. Gerrard Poems 212: What traveller c'er met sic folk

To nestle kists or rip a poke.

[Sic. But prob. a misprint for rustle.]
CHAPTER II

THE PLACE-NAME, AND KINDRED MATTERS

In these days, Kirriemuir, as "Thrums," has become the Mecca of the Barrie cult, and, year by year, considerable numbers of pilgrims traverse its narrow, steep, and crooked ways to pay their devoirs at its classic shrines. It is averred that the indignation of the zealot is a sight to see, when in his blissful ignorance he requests a ticket for "Thrums," to be told by a supercilious booking-clerk—there's no such place! Even the native will deny its existence, and threaten with pains and penalties all and sundry who dare to call the burgh anything but KILAMEUR.

But the native is in even a worse case, when, to enforce his protest, he demands a scrutiny of the map. The sheet is as innocent of Killarricur as of Thrums, and only by much hardiness of speech may he convince the sceptic that the point named Kirriemuir—a good five miles north-west of the county town—is in very truth all that stands for both. That craetur Barrie," will, assuredly, come in for as good a tonguing as is in the nature of his critic, but he will carry his point and retire victorious. He is wondrously touchy on the subject of Thrums, and very slow of conviction. Generations may pass ere he takes kindly to it; indeed, the present race may die disowning the intruder. If they only knew what liberties have been taken in the past with the name of their town! Few names, if any, have been so twisted, so transformed. Even its original form, whatever it was, seems lost in the exuberance of evolution. Surely one name more or less can matter but little, and THRUMS, or anything else, in the light of what we are now to see, might easily be forgiven, and gracefully accepted.

Professor Blackie says: "It is not only in commemorating, like coins, special historical events, that local names act as an important adjunct to written records; they give likewise the clue to great facts and movements of which written history preserves no trace," and our great public documents are singularly illuminating on this very point. Here, for example, is a list of no fewer than thirty-six forms of the chief local place-name, as culled from the different volumes of the Register of the Great Seal. These varied spellings of a single word might form the subject of a long dissertation, but it will be sufficient for the present simply to tabulate them in approximate chronological order:

Keirmure Keremur Kermuir
Kelimir Kyrremure Killemuir
Kerymore Kerimure Kyrimore
Kerimore Kerymure Kyrimore
Keremure Kermure Killemoor
Kerremure Kermure Killemoore
Kylymure Kyremure Kirrimoor
Kyrimume Kyrimure Kirrimoore
Killemure Kiliemor Kirimore
Kerimuir Kerymor Kyrymure

Now, though this list seems bewilderingly varied, it shows but two forms of the erratic word. The difference lies between the prefixes Ker and Kil, and the popularly accepted definitions of the place-name incline to one style and again to the other. But, as both forms are present in this list, it is conclusive so far, at least, that in one or other of these spellings lies the true, or original designation of the town.

The OLDEST form is, of course, most authoritative. Without doubt that was the Kerimore, Kerimure, Kermuir, or Keirmore of certain twelfth and thirteenth century documents, to which reference will again be made. This word embodies the Gaelic CARROU MOR, meaning the big quarter, or division (of Angus), and assigns the name to a period far earlier, it may be, than the introduction of Christianity, to which the KILMORE appellation avowedly belongs. The civil divisions of the Sheriffdom of Angus during the twelfth century...
embraced the "Quarter of Dunde, the Quarter of Kerymure, the Quarter of Abirbrothock, and the Quarter of Brechin." Kirriemuir was easily the largest of these divisions, and Carrow-more its natural designation.

By a liberal exercise of faith, a tenth century reading becomes possible. Symeon of Durham refers to WERTERMORR as Littlemoor in 934, and if WERTER be accepted as Old English for QUARTER, it may be held, as Skene agreed, that the "great quarter" is the earliest known meaning of the name. Symeon's reference is to King Athelstane, and reads as follows: "Thereupon he subdued the enemy, and wasted Scotland with a land army as far as Dunnottar, and Wertermoor, and with a naval force harried it as far as Caithness."

The preponderance of the Ker, Kir, or Kyr form, as shown in the list, might in itself be conclusive, but other documents yield their quota of evidence in favour of the earlier word. Thus, the Register of the Privy Council renders it through the sixteenth century — Kerimure, Keremure, Kermure, Kirmure, etc., and the Douglas papers generally are equally favourable to the Keri, or Kiry reading.

The evidence of the Registrum de ABERBROTHOC should also be adduced. The great Abbey of Arbroath was the ecclesiastical superior of the local church; and being a near neighbour, as it were, the spelling of the name appearing in its records is of much importance. The leading forms are Kilimure, Kerimore, Kerymore, Kyrimor, Kyrymur, Kylymure, and Kyrymure, and the dates of these entries range from 1483 to 1525. Here again, the balance is distinctly favourable to the Ker or Kyr prefix. The two exceptions seem to prove the rule, and may safely be regarded as merely the badly spelled forms of a word easily mangled by the local pronunciation.

The variant, Kilmarie, which means the "Church of Mary," has much to commend it. But little can be urged in its favour, and, in point of fact, the word does not appear in its proper three-syllabled form in any important connection. To say that Kilmore or Kilimur are corruptions of Kilmarie is an easy solution of the difficulty, but it is far from being so satisfactory as that which simply regards the natural change of the older Kir into the more liquid Kil as amply accounting for its existence.

There is a legend in the local lore, gravely recounted in days gone by, that once upon a time a KILN stood on the Muir, and that on this fact the name Kil-a-muir was founded! It may be hoped that the apocryphal KILN had a better foundation than this fable, which, really, accounts for nothing save the local pronunciation of the name. That, however, it very correctly indicates, a fact which the stranger should carefully digest. Of "Kir," or "Kirrie," and the like, little need be said. They show better, perhaps, than anything else could, the fondness of the native for his birthplace, but "THRUMS"—well, that's another matter.

THRUMS is not a beautiful name, but it fits the scene of the Barrie idylls like a glove, to use the popular phrase. And not the scene only, but the PERIOD, which, though it has passed away, could not have been better designated than by this word, whose magic will preserve its memory as time rolls on. KIRRIE seems now to be but a fusionless makeshift; for the spell of genius has fallen on the town, and the glamour of THRUMS has spread the wide world over.

But why Thrums ? is the oft-repeated question to which some answer should now be tendered. Well, the word is simply the local technical term for threads, a "bunch" of which hung on every loom in the old weaving days. These thrums were the ends of warp, saved from previous webs, or furnished with the new, to mend the broken threads of the growing fabric. One of our old Acts of Parliament forbids the making of "thrums" of undue length, to the scathing of the master weaver. In point of fact, the abuse here indicated led, in later times, to further parliamentary interference, and to the establishment of the elaborate system of inspecting, measuring, and stamping, referred to in a subsequent chapter.

They played many parts in the domestic economy of a weaving community, these web ends, and were more in evidence than was any other detail of the trade. The weaver's dress, for instance, was often very "thrummy." His "breeks" were tied at the knee, and often his "gallaces" and minus buttons were replaced by the ubiquitous article. His
finished web was tied with thrums, and if his barrow was broken or "shauchly" they were freely used in repairs or strengthening. A watch chain made of plaited thrums was no exclusive monopoly, and as boot laces they had a sort of universal popularity. Verily, to thrums the old-time weavers were indebted more than can now be rightly understood.

In the weaver's dwelling also, and among his bairns, thrums had an almost unrestricted use. Alternating with "caddis," and "ravellins" they were sponge, swab, duster, even kindling, and in his flower plot thrums were indispensable. Often they overflowed the cottage and found their way to the grocer's shop, where a bunch of them served as thread or string for every sort of package. Some weavers, more for convenience than of necessity, wore their thrums "gravat" wise; they were their laddle's "strings" in an almost twineless age, and in a myriad forms the "lang ell" of warp flaunted its linnen strands in every corner of the township.

What more natural, then, than the title Thrums? What more felicitous than the use made of it in the masterly fiction of its distinguished son? As we have seen, thrums were used for mending the broken threads of a web; and so this skilful weaver of romance gathered and joined in the fairest of fabrics, the scattered threads of life and character current in his native town.

CHAPTER III
THE EARLIER RECORDS

Somewhat hazy and disjointed, as is only to be expected, the earlier records relating to Kirriemuir show from the first the ecclesiastical jurisdiction of the great Abbey of Arbroath, and the civil superiority of the powerful house of Angus. Mr George Hay, the historian of Arbroath, says:—"Light shed from the torch of religion is mainly that which enables us to grope our way in the obscure region of the early history of this country, both national and local." Thus, in the reign of King William the Lion, and early in the thirteenth century, we find Malcom, the last of the Celtic Maormors, or Earls of Angus, assigning, with other benefices, the Church of Kerimor in the diocese of St. Andrews to the Aberbrothock foundation. Another entry in its Register, of even earlier date, indicates that the value of this "Ecclesia de Kelimur," as at first donated by Earl Gillechrist, was 5 marks.

This early donation of Earl Gillechrist is of great importance. It dates from 1201, and bestows on the Abbey of Arbroath "the chapels, lands, tithes, common pasturage asements, and all the pertinents belonging to the Church of Kerimore." In Earl Malcolm's time the name of the chaplain or priest of Kerimur was one Bricius, who signed certain charters granted by the feudal lords, sometimes as Bricius and sometimes as "Bricio p. de Kerimor." It is interesting to note that this cleric was not a celibate, as is attested by a later charter of the Countess of Angus, where mention is made of Nicolaus, the son and successor of Bricius, as "Sacerdotis de Kerimure." Bricius also acted as "Justus," or judge, in the baronial courts held at Kirriemuir, an office...