

## A NORTH CARDIGANSHIRE WOOLLEN YARN FACTORY

Its history, machinery, trade and rural associations, with  
a note on a family of Montgomeryshire millwrights

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The history of the woollen industry in Wales has been dealt with by various authors. Drs. E. A. Lewis<sup>1</sup> and Caroline A. J. Skeel<sup>2</sup> have both contributed to the elucidation of its development in mediaeval and early modern times, while Miss A.M. Jones<sup>3</sup> has indicated its present extent in her survey of rural industries. This paper is an attempt to indicate the working of a woollen yarn factory which has fallen into disuse within recent years, and its place as a factor in a rural community in the nineteenth century. The study of the trade of a remarkable family of Welsh millwrights of the same period also throws much light on the woollen industry in Wales during the last century.

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<sup>1</sup> E. A. Lewis, MA., D.Litt., D.Sc.: "The Development of Industry and Commerce in Wales during the Middle Ages". *Transactions of the Royal Historical Society*, new series, vol. xvii, pp. 151-161.

<sup>2</sup> C. A. J. Skeel, M.A., D.Litt.: "The Welsh Woollen Industry in the Eighteenth and Nineteenth Centuries". *Arch. Camb.*, vol. lxxix, (1924), pp. 1-38.

<sup>3</sup> A. M. Jones, M.Sc.: *Rural Industries of England and Wales, IV, Wales*, Oxford, 1927, pp. 17-43.

## 1 The factory and its machinery

Llanrhytyd is a small village situated about nine miles south of Aberystwyth on the Aberaeron road. Roads from Llangwryfon and the Mynydd Bach district, Tregaron, Blaenpennal, and Bethania converge upon it, and it is therefore a natural meeting place for the inhabitants of a large area of Cardiganshire. The river Wyre flows through the village - with the village church, and the two inns on one bank, and the village smithy on the other at the bridge end. About two hundred yards below the bridge, between the main road and the river, and opposite the church is a lime-washed roughly-built stone building (see Figures 1 and 2).

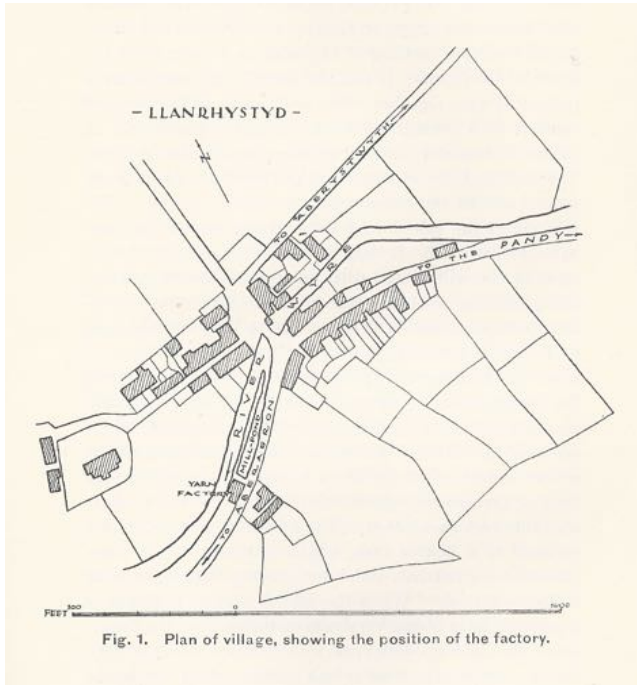




Fig. 2. The Llanrhystyd Yarn Factory. Exterior view, showing the machinery in course of removal, and also the two factory workers—Mr. and Mrs. James Jones.

This was, up to the beginning of 1926, a factory for the manufacture of woollen yarn and was worked for a period of about fifty years by Mr. James Jones and his wife until ill health compelled Mr. Jones to abandon the work. The machinery has now been purchased for, and removed to the National Museum of Wales, the factory building being converted into a saw-mill. The factory machinery was driven by water-power, supplied by means of a large undershot wheel, driven by water from a leat which runs from a pond supplied from the River Wyre (see Figure 5). Inside, on the same axle upon which the large waterwheel was built, was another wheel, also of wood, and 7 feet 8 inches in diameter. This was fitted with large wooden teeth, projecting on the side of the wheel at right angles to it. Fitting into these, on both the right hand and the left, were two sets of similar teeth or cogs fitted at the ends of the horizontal axles of two wooden drums which carried the beltings which drove the factory machinery. The horizontal drum axles are of solid wood with steel projections turning in brass bearings at each end (see Figure 3). The machinery consists of a small willy, a scribbler-carder, a condenser-carder, a spinning billy and a spinning jack (see Figure 4). The wool-mill, willy, tucker, "whillow", "devil" or [Welsh] *chwahwr* (scatterer) was the first machine employed on the raw wool to open and disentangle the close matting of the wool as it came from the hands of the farmer. It was also used for mixing different parcels of wool together. The willy used at Llanrhystyd consists of a cylindrical drum 16 inches broad and 12 inches in diameter, covered with teeth, or spikes, of iron. This was enclosed in a case and the wool was fed into the space

between the casing and the spiked cylinder. The rotation of the cylinder by water-power caused the wool to be well worked.

It may be noted that, compared with some of the willys used early in the nineteenth century, this particular wool-mill was of a primitive type. A description, published in 1819<sup>4</sup>, refers to "a wool-mill used in Yorkshire [which] consists of a cylindrical drum . . . made to revolve near three hundred times *per* minute. Its circumference is furnished with teeth or spikes, and, immediately above it, five small rollers are placed, which are also furnished with similar teeth. The teeth of the rollers and those of the drum intersect each other when they all turn round, and the teeth of the five small rollers also intersect each other. The cylinders and rollers are enclosed in a box or case, which is closed on all sides, except a door in front, which turns down, the hinges being at the lower side. When the door is shut up it stands in a perpendicular plane, very near to the teeth of the drum'; when the door is opened, or turned down into the horizontal position, the wool is laid upon it, about one pound weight at once, and the door being closed the wool is brought within reach of the teeth of the cylinder, which take the wool and carry it upwards, so as to work it between the teeth of the cylinder and those of the five rollers placed over it". The wool is worked in between the teeth of the cylinder of the Llanrhystyd willy by being taken in between two small steel rollers, one of which is fluted.

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<sup>4</sup> Abraham Rees. D.D., F.R.S., F.L.S. : *The Cyclopaedia ; or Universal Dictionary of Arts, Sciences, and Literature*, vol. xxxviii, *sv*. "Woollen Manufacture".

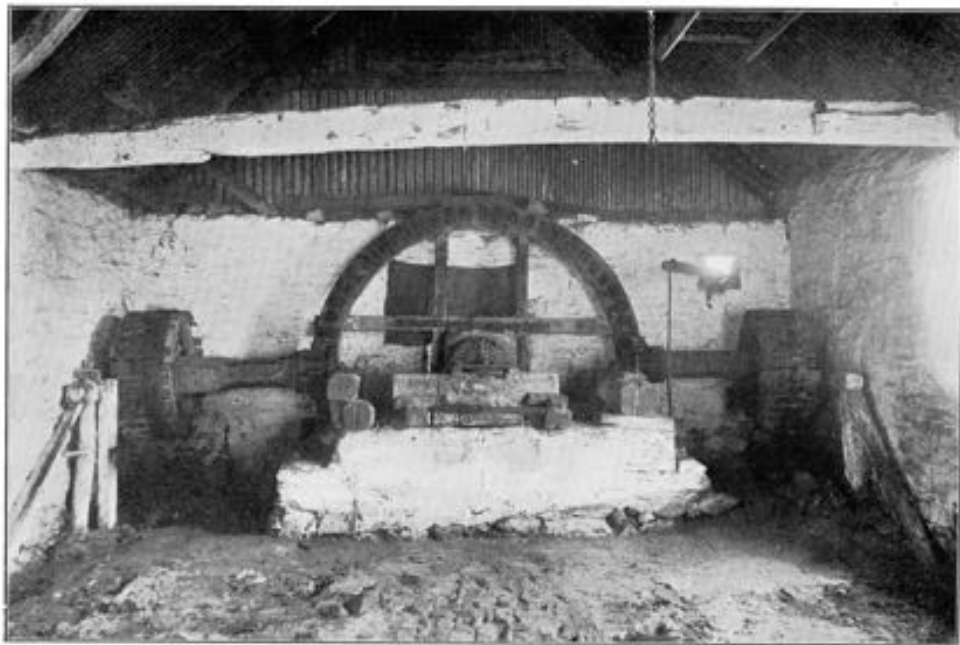


Fig. 3. The Llanrhystyd Yarn Factory. The belt drums, and large cogwheel built on the same axle that holds the waterwheel which supplies power for the factory. The lever on the right of the photograph is for raising the sluice-gate.

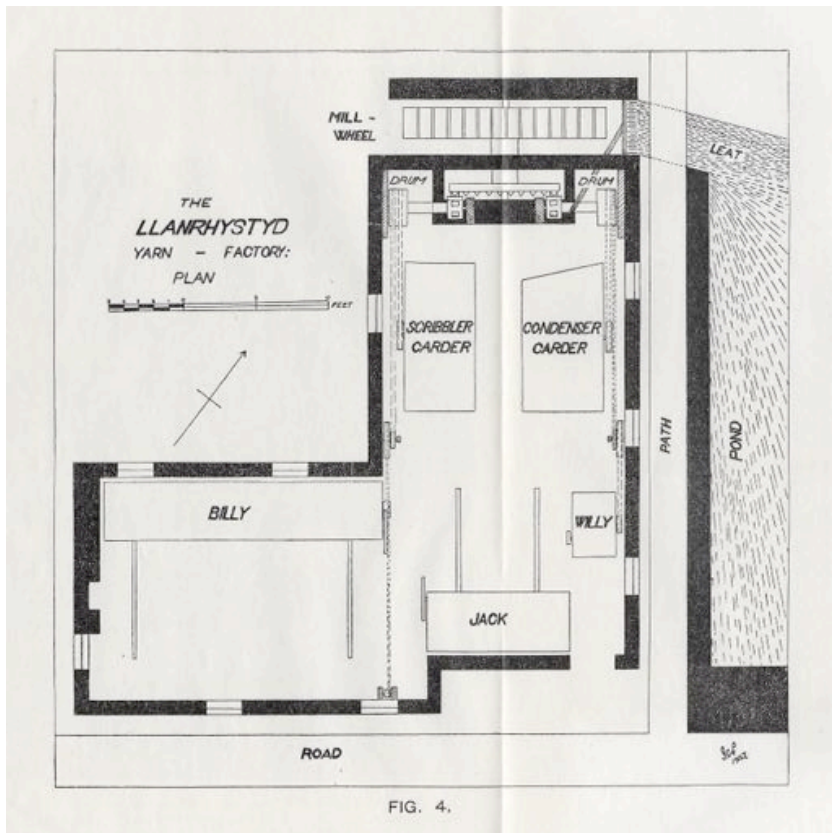


Figure 4 Llanrhystyd factory machinery



Fig. 5. The Llanrhystyd Yarn Factory. The undershot waterwheel and sluice-gate. Note the floodgate lever (which is manipulated from inside) projecting from the gable end of the building.

From the willy, the wool was taken to the scribbling machine (see Figure 7). This was the first stage of carding, the operation of disentangling the fibres which were before closely entangled, drawing them out separately, and so rendering the wool light and flaky. The scribbling machine is very similar to the carding machine, having a large cylinder which is covered with steel carding-brushing. This cylinder was turned by water-power, the wool being regularly and slowly supplied by feeding machinery until the cylinder was literally covered with wool. This wool was worked by several other small rollers or cylinders similarly covered with steel-brushing, and called workers or clearers. The repeated transfer of wool from roller to roller and to the main cylinder constituted the chief action of scribbling. After the wool had passed through various workers it was taken up by a slowly-rotating large cylinder (but smaller than the great cylinder) called the doffer, and stripped from this by a steel comb. The wool so stripped hung together in a continued web of thin texture. In this state the wool was said to be scribbled and was then ready for carding, a process similar to that of scribbling except that the wool was formed into small cylindrical rolls, "the first rudiments of a thread". The scribbling machine from Llanrhystyd is the work of Robert Davies, of Llanbryn Mair, Montgomeryshire, whose work and trade will be again referred to in this paper. The machine has a strong oak frame, and with the exception of the cylinders and the necessary metal fittings is entirely of wood, all the belt pulleys being also of wood. The machine is fitted with scales for the weighing of the wool.

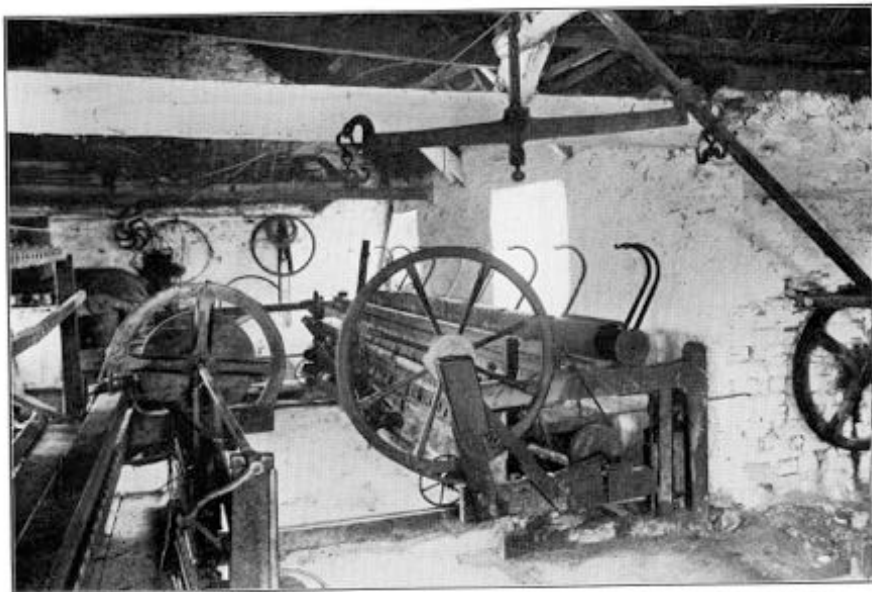


Fig. 6. The Llanrhystyd Yarn Factory. View of the interior, showing the spinning jack (left) and spinning billy (right).



Fig. 7. Llanrhystyd Woollen Yarn Factory. Interior showing the scribbler-carding machine (left) and the condenser-carding machine (right) with the willy in the foreground (right).

The condenser carding machine (see Figure 8) is of iron and is much more elaborate in construction than the scribbler-carding machine. It was a later device and served to reduce the thickness of the carded strands so that intermediate reduction to stubbing became unnecessary. Through the united operations of scribbling and condensing, there were produced cardings composed of fibres of wool laid very lightly together with the least possible entanglement, of regular and even size, the perfection of the spinning depending to a high degree upon the regularity and evenness of the fibres.

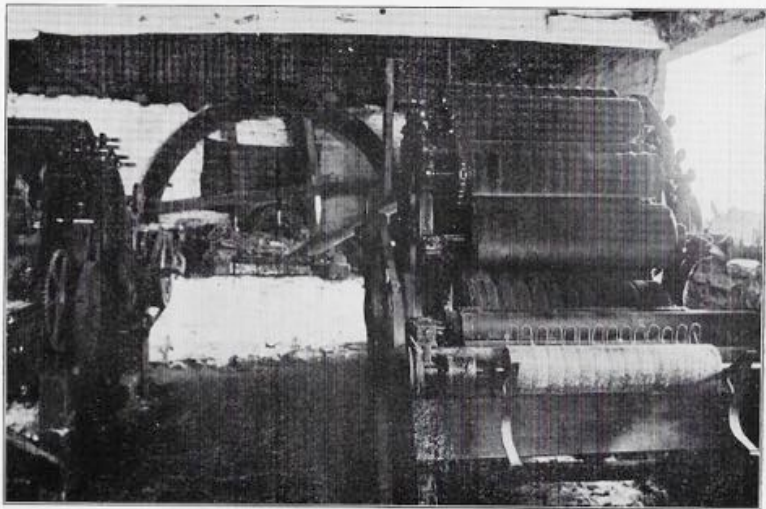


Fig. 8. Llanrhystyd Woolen Yarn Factory. Interior showing near view of condenser-carding machine (right).

The two other machines in the Llanrhystyd factory are the jack and the billy for spinning the yarn (see Figure 6). The jack is a small machine, and in this case, as the owner informed me, consists of part of a billy which had been cut down. It was used

for rough spinning and for the twisting of yarn, and consists of thirty spindles. The billy has seventy-seven spindles and is of the ordinary type, consisting of a movable carriage running upon grooved wheels along two rails. The wool from the carding machines was placed on the drums of the billy and spun into yarn on the spindles.

## **2 Trading methods and the process of cloth manufacture**

The Rev. Walter Davies, M.A. (*Gwallter Mechain*), writing in 1815, refers to the "domestic woollen manufacture on the Cardiganshire plan expedited by carding machines, situate at convenient distances from each other" and wishes to see it "pervading every part of Wales capable of adopting it"<sup>5</sup> Two years earlier he had written of North Wales: "Formerly the whole flannel was manufactured, in the most literal acceptation of the term, by the tedious operation of the hand, by farmers and cottagers in their own houses. Of late, the powerful agency of water has been brought to their assistance, and [in the county of Montgomery] about 40 carding and several spinning machines have been erected in different parts".<sup>6</sup> What was true in this respect of Montgomeryshire was true also of Cardiganshire, and in many districts the factory, the domestic weaver and the fuller were to be found plying a regular trade. While it is true that the rural area of Llan bryn Mair, Montgomeryshire, with its meagre, scattered population,

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<sup>5</sup> Walter Davies, A.M.: *General View of the Agricultural and Domestic Economy of South Wales*. London 1815. Vol. 2, p. 444.

<sup>6</sup> Walter Davies, A.M.: *General View of the Agricultural and Domestic Economy of North Wales*. London 1813. p. 392.

produced at one period of the nineteenth century flannel to the value of £8,000 a year,<sup>7</sup> it is no less certain that there was as steady a trade in North Cardiganshire, and while there is today no vestige of the industry left in Llan bryn Mair, it still remains of some importance in North Cardiganshire. Reference has been made to the central character of Llanrhystyd (see Figure 9). It is situated at the meeting of the roads which lead from an extensive *hinterland*, the northern region of the Mynydd Bach, with its lonely concealed villages reached by mountain roads and lanes along which, in this century, the motor car has already found its way. The farming folk of this district supplied the wool for the factory. It is an interesting fact that these folk reared their own sheep, collected the fleeces and brought their own supply of wool to the factory. There were then two methods of procedure possible. The farmer could either take his wool to the factory and place an order for yarn, which he then took to a local weaver to weave into flannel or cloth, and finally to be taken to the Llanrhystyd *pandy* to be dyed, washed, scoured, fulled, dried and pressed; or on the other hand (and this seems to have been more usual) the owner of the fleeces took his wool to the yarn factory and there gave an order for the finished article. The occupier of the factory then became responsible for the production of the finished article. He produced the yarn and forwarded it with instructions for its use to one of the weavers who in turn sent it to the *pandy*. The farmer paid Mr. James Jones, who paid the weaver and the fuller. One of Mr. Jones's

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<sup>7</sup> *Montgomeryshire Collections of the Powysland Club*, vol. 37.

“Decayed and Decaying Industries of Powysland.” See also references in Caroline A. J. Skeel, *op. cit.*, p. 22.

account books shows to what extent this system was prevalent: he was given orders not only for yarn, but for flannel blankets, *cartheni* (closely woven reversible heavy quilts), cloth, hose, petticoats, men's underwear, shawls, etc. He was also given orders for dyeing, and an iron cauldron, used by Mrs. James Jones for dyeing, is amongst the articles now in the collection at the National Museum of Wales. It will be seen therefore that the Llanrhystyd factory served a large number of farming folk (see Figure 9) in an extensive rural district, and the woollen industry gave full time employment to the yarn-spinner and his wife, while weavers and a fuller were able to obtain a comfortable livelihood through practising their craft, and farming in their spare time. In many ways the factory was the pivot of an ideal community where mutual aid was the ruling principle of life. It fell to the more modern protagonists of mass-production methods to shatter a part, though not the whole, of that rural polity.

Visitors from England or English Wales who seek to buy flannel from rural factories such as the Llanrhystyd factory find it very difficult if not wholly impossible to obtain it, the reason being that flannel is only made to specified orders, from wool brought to the factory by the customer. Therefore it is not surprising to learn that in some instances, of which the writer has personal knowledge, the order is not even given to the factory-man. A villager desires to obtain blankets. *He gives the order to a farmer*, who supplies the wool to the spinning factory; the spinner sends it to the weaver, the weaver to the fuller, and the buyer pays the farmer!

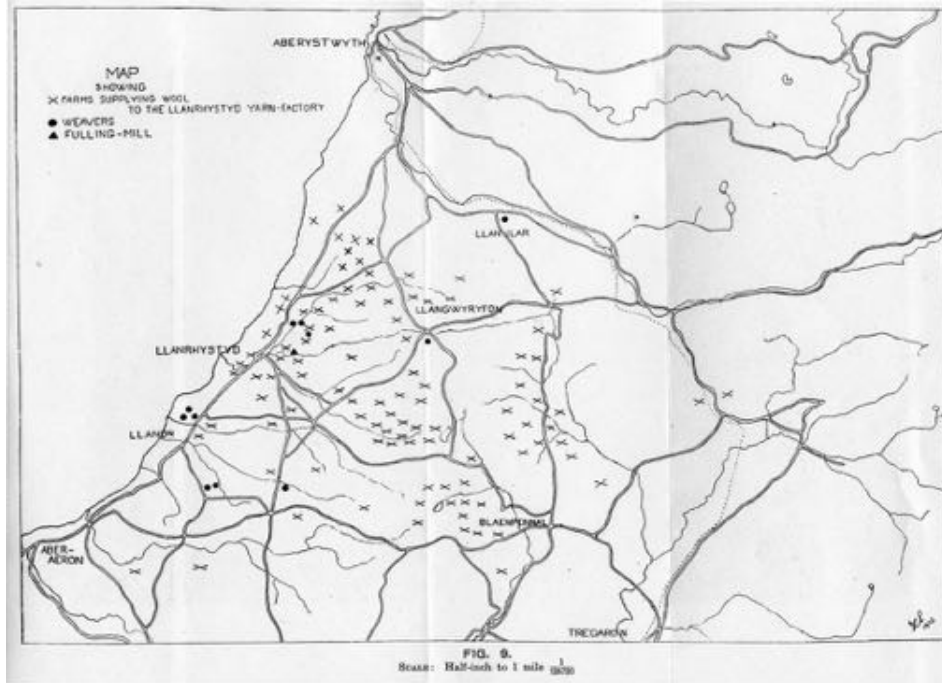


Figure 9 Map related to Llanrhystyd Yarn Factory

### 3 The Pandy

Llanrhystyd appears to have had a long established connection with the woollen trade. Cloth-men are mentioned as being there in 1344<sup>8</sup> and towards the end of the last century there were at least eleven weavers in the neighbourhood; *of these only one remains*, and most of his machinery has been dismantled. This weaver " gets the yarn, makes a pattern, warps by hand and fixes it on to the beam' of his hand-loom. He weaves the whole length, and then sends it to the *pandy*—a distance of two miles".<sup>9</sup> Of the eleven weavers, Mr. Thomas Williams, the fuller, tells me that one lived at Llanilar, one at Llangwryfon, two at Fron-deg one at Sbeit, one at Nebo, two at Pennant (of which one remains), and three at Llan Non. It is interesting to note that sailors coming home to Llan Non from time to time brought wool from France, called *gwlan Pomeronn*.<sup>10</sup>

The Welsh *pandy* is an institution of considerable age. Fulling mills appear in Wales early in the reign of Edward II, at the time when fulling mills were being introduced into Lancashire.<sup>11</sup> They became numerous as is evidenced by the

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<sup>8</sup> *Court Rolls* (P.R.O.), Portf. 215-25 and references to them in E. A. Lewis, *op. cit.*, p. 157.

<sup>9</sup> A. M. Jones: *A Report to the Institute for Research in Agricultural Economics. University of Oxford, on the Rural Industries of Cardiganshire, Pembrokeshire and Carmarthenshire*, p. 10. The writer wishes to express his thanks to Mr. A. W. Ashby. M.A., of the Agricultural Economics Department, University College, Aberystwyth, for allowing him to see a draft of this Report.

<sup>10</sup> The meaning and etymology of the word are doubtful.

<sup>11</sup> E. A. Lewis: *op. cit.*, p. 156. See also Birch : *History of Margam*

frequency of the element *pandy* in place names, and the tenter hooks upon which the cloth, having been fullled, had to be stretched to dry, have given names to many such places as *Pendeintir* in the rural districts. (The study of the woollen trade as a factor in the determination of Welsh place names is in itself a subject of considerable importance.) The Llanrhystyd *pandy* (see Figure 10) still remains, but the fuller, Mr. Thomas Williams, who is also a small farmer, has but an insignificant amount of fulling work annually. The trade is in the last stage of its decline. The mill is driven by water-power and the *ffustiau* (the two big wooden hammers used for the fulling, and described by Miss A. M. Jones—wrongly, I believe as "fists"<sup>12</sup>) are in perfect condition (see Figure 11). These hammers "are fixed to an upright post in such a way that they are alternately lifted by the wooden projections fixed to a wheel which is revolved by the water-wheel.<sup>13</sup> On falling they fitted into a hollow known as the stock, on which the cloth was placed to be pounded by the strokes of the hammer".<sup>14</sup>

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*Abbey*, pp. .504. 305, for such mills at Miskin, Llanbleddian and other districts in Glamorgan before 1314. Dr. Lewis refers to fulling mills at Usk and Caerleon too in 1314.

<sup>12</sup> A. M. Jones : *Rural Industries of England and Wales IV.* p. 24.

<sup>13</sup> In the Llanrhystyd *pandy* the waterwheel axle is extended, and the projections fitted on to it.

<sup>14</sup> A. M. Jones : *op. cit.*, p. 245.



Fig. 10. The Llanrhystyd "Pandy". View of the exterior.

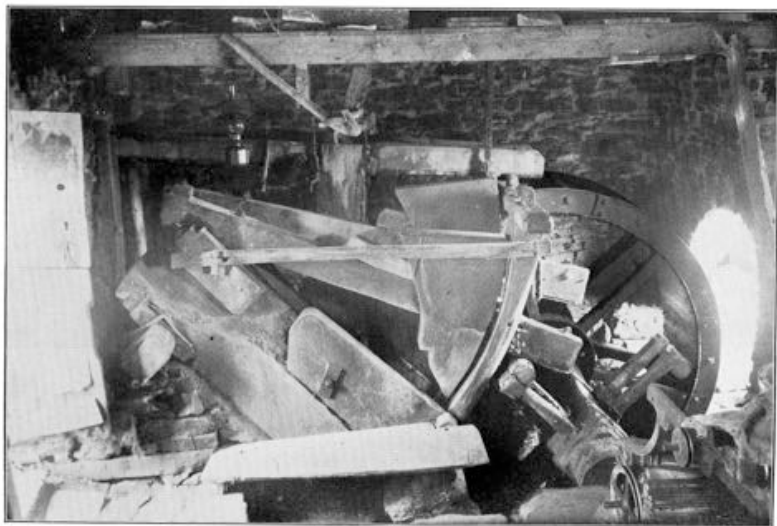


Fig. 11. The Llanrhystyd "Pandy". View of the interior, showing the two wooden hammers and the water-wheel.

The Rev. Walter Davies<sup>15</sup> refers to the different processes of fulling. "They are bleached three times under the hammers of the fulling mill: the first time with urine, the second with fullers' earth (brought by sea from Hampshire and sold at Machynlleth for about 3s. per cwt. which is reckoned sufficient for about 23 pieces), and the third with soap"<sup>16</sup> I have heard of old factory men in West Montgomeryshire who used to collect urine from the village homesteads for use in bleaching and dyeing. Mrs. James Jones, the dyer in the Llanrhystyd factory, informed me that the flannel to be dyed was put in a cauldron which was filled with urine coloured with the requisite dye,. In Llanrhystyd, urine was known as *llaesw*; and should the *llaesw* boil or water be used instead for the solution of the dye, its quality and fastness suffered, and dyeing, consequently, was considered a difficult process. Urine, indeed, seems to have been generally used in the *pandai* for cleaning, bleaching and dyeing, although its use for this purpose was forbidden in England as early as 1376.<sup>17</sup> The fullers' earth mentioned by Davies (*supra*) was also imported in

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<sup>15</sup> Walter Davies : *op. cit.* (*North Wales*), p. 393.

<sup>16</sup> He also refers to the use in weaving of "a glutinous kind of bluish clay instead of size ". One is reminded of the old derogatory rhyme describing Mawddwy in Meirionydd :

"Tri pheth o Fawddwy a ddaw,  
Dyn cas, *nod glas*, a glaw".

<sup>17</sup> L. F. Salzman, M.A.. F.S.A. : *English Industries of the Middle Ages*, Cambridge, 1923, p. 224 note, and Riley: *Mems. of London*, p. 401.

considerable quantities, and there are doubtless several references to the import in the port-books.

Not only did the Llanrhystyd fuller thicken, felt, clean and bleach (or dye) the woollen fabric, but he also did the work of the rower or teazler, i.e., raising the nap, drawing up from the body of the cloth all the loose fibres with teazles or by means of a small teazling machine.

When this was done the fabric was shorn by knives to give it a smooth surface: it was then ready for the buyer.

#### 4 The Llan bryn Mair millwrights

John Davies (*Peiriannydd Gwynedd*) (1783-1855) was a native of Llan bryn Mair, Montgomeryshire, born at Hafod-y-foel, a farmstead in the upper region of the Iaen system. In 1820 he removed to Dol-goch, a house which he built, half-a-mile, on the western side, from the summit of the Talerddig watershed, which divides Severn from Dyfi. There he established a millwright's business which soon became of national importance. But not only was he millwright: he was also rural carpenter, smith, clockmaker, undertaker, wheelwright, ironmonger, jack of all the metal trades. While one finds in his account-books<sup>18</sup> an order for scribbler carding machines at

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<sup>18</sup> For allowing me access to the old Dol-goch account books I am much indebted to my friends. Messrs. R. G., D. C. and A. Ll. Davies, greatgrandsons of John Davies. who in the practice of mechanical and electrical engineering and of the wheelwright's trade are worthily upholding and developing the hereditary

eighty pounds each, there are also to be seen orders for "repairing a teapot" at fourpence, "mending umbarello Hanah, 2d.", and "sodring can, 3d."! John Davies was also a proficient musician and bard, and was precentor at the local chapel for thirty years. A brother of his was the Rev. Evan Davies (*Eta Delta*) of New Market and Llannerch-y-medd, the famous Welsh temperance reformer. Clearly, as Mr. W. P. Crankshaw<sup>19</sup> has said of his son Robert Davies, this man was a "Welsh genius"!

In course of time, his son Robert Davies (died 1885) entered into partnership with him, carrying on the business after his father's death; Robert himself being succeeded by a second John Davies who died a few years ago, and whose sons are now developing the business along modern lines.

I have examined the Dol-goch account-books which cover fifty-seven years of the nineteenth century, from 1836 to 1893, a period which shows the phenomenal development and sudden decline of the woollen industry in rural Wales. The Davieses supplied machinery for the woollen industry to manufacturers in all parts of the country, the whole of Wales (see Figure 12) being represented in the list.<sup>20</sup>

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tradition of their family at Dol-goch.

<sup>19</sup> W. P. Crankshaw: *Report on a Survey of the Welsh Textile Industry made on behalf of the University of Wales*, p. 14. 1927.

<sup>20</sup> The Dol-goch books show that the Davieses had customers at Melin mynach; Quakers Yard; Merthyr Tydfil; Carmarthen ; Llanelly; Llanarthney; Talsarn (Cards.); Tal-y-bont (Cards.); Llanddowror; Cwmduad; Llandaf; Mynydd islywn ; Swansea ; Govilon ; Abergavenny ; Mamheilad ; Pont-y-pwl; Lladyfan ; Cwmllechwr ; Llandeilo;

The list is truly an astounding one; and while one finds that the Dol-goch manufacturers continued to supply "condensers", "tuckers" and "fancys" in 1890, the trade had at that time declined considerably—the national millwright becoming more and more the local wheelwright and smith; several unpaid accounts are marked "bankrupt", while one of the unpaid accounts has, written below it at a later date, "gone to Patagonia".

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Llanfynydd ; Llandovery ; Llandefeilog ; Llanddeusant; Newbridge (Glam.); Lampeter Velfrey; Solfach; Dolgelley ; Newcastle Emlyn ; Bridgend ; Narberth ; Trelech ; Cefn coed cymer ; Llangrwyni; Llangadoc ; Crickhowell; Myddfai; Capel Drindod ; Abercarne (Newport, Mon.); Caerffili; Llanwrtyd ; Cardigan ; Neath; Brecon; Rhyd-y-bont; Llanbyther; Aber Bar-goed; Capel Iwan; Llan bryn Mair; Abercegir; Machynlleth; Llanidloes ; Llanfyrnach (Pemb.); Morryston ; Dinas Mawddwy ; Llansantffraid (Cards.); Glanfread; Llwyngwrl; Bala; Llanfyllin ; Holywell; Aberystwyth ; Amlwch ; Sennybridge ; Aberarth ; Pont-newynydd ; Tremadog ; Tregaron ; Llanllugan ; Llangranog; Aberdare; Llandderfel; Llanrvst; Llangeitho ; Cellan ; Ystrad Meurig ; Blaenpennal; Newtown (Mont.); Gyffylliog; Pont-y-pridd Llanlyfni; Lampeter; Cerrig-y-druidion ; Cwmgarw ; Cwm belan (Mont.); Cowbridge; Pont-ar-fynach (Devil's Bridge); Garn Dolbenmaen; Llanllwnni; Blackwood; Cardiff; St. Clears; Pont rug; Llanrhaeadr (Mont.); Llandysul (Cards.); Llanpump-saint; Llanfair (? Caer Einion); Llanbedr (Mer.); Llanwrda; Tal-y-sarnau (Mer.); Llanddewi Brefi; Golden Grove; Ciliau Aeron ; Llanrhystyd; Pontardulais; Conwy; Llanelu; Llanblodwel; Ystradgynlais; Aberaeron; Gwaun-cae-gurwen and Pont-ar-dawe.

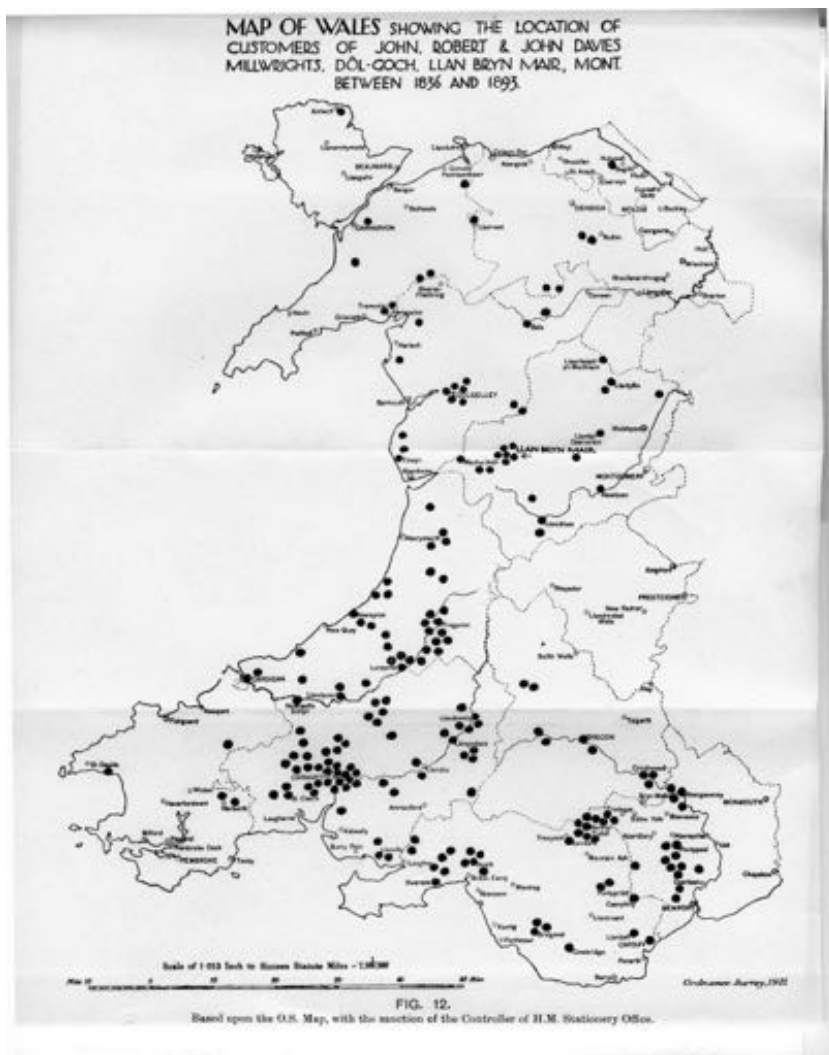


Figure 12 Customers of John Robert and John Davies

It was towards the middle of the century, notably during the partnership of John and Robert Davies, that the millwrights' trade was at its height. In 1842, Robert Brees, Hugh Davies, John Edwards, John Evans, John Francis, John Lewis, William Lloyd, Isaac Peat, Richard Peat, Edward Rees and John Rowlands were "men eating with John Davies". Some of these were, no doubt, employed for part-time labour, but even so the list is evidence of a flourishing trade. Smiths were employed by the Davieses and it appears that much if not all the necessary iron work was done at Dol-goch. Several spinning jacks, usually of 50 spindles, were made for prices ranging from £11 to £15. A carding engine, "26 inches wide with eight workers" was supplied to Herbert Jones, Melin mynach, on April 13th, 1837, for £52. In 1836, William Jones, of Lampeter Velfrey, had his "engine" repaired for twenty-two pounds, ten shillings; in 1838, a spinning jack of 100 spindles was supplied to Thomas Davies, Capel Iwan, for £27; and in May, 1841, "two scribblers, 42 ins. wide, 8 workers" to Benjamin Jones, Llanidloes, for £160, with a new billy of 80 spindles and jack of 60 spindles for £50, in the following December. On July 20th, 1867, Robert Peat of Senny Bridge, Brecknockshire (a member of an old Llan bryn Mair family of weavers) was supplied with a "new condenser without quills, 5 drums and stands, 10 bobbins and tin dishes" for five pounds, ten shillings. The machine most generally sold by the Davieses, however, was the willy, or, as it is entered in the account-books, the "whillow", an item that occurs regularly throughout the fifty-nine years.

It has already been stated that the scribbler carding machine in the Llanrhystyd collection of machinery was made at Dol-

goch. It came to Llanrhystyd from Tal-y-bont factory, where, Mr. James Jones informs me, it may have been obtained second-hand. Much machinery, including carding machines, was bought by Tal-y-bont manufacturers from the writer's grandfather, David Peate, whose brother Edward owned the Glyn-hwrdd factory, Llan bryn Mair, which ceased working in the last century. It is therefore possible that the Llanrhystyd scribbler may have been from that Llan bryn Mair factory. But, in the few Dol-goch account-books available, I have found no reference to scribblers bought by Edward Peate. On January 27th, 1843, however, Thomas Morgans, of Tal-y-bont, bought from Messrs. J. & K. Davies of Dol-goch a " New Scribbler, 42 ins. wide " for forty-five pounds, and it is possible that the machine in question is that referred to in this item. The only reference to Llanrhystyd in the Dol-goch books is a reference to supplying " T. R. Price, Factory, Llanrhystyd " with " 15 doz. bobbins, 8/-" on April 19th, 1888.

The Dol-goch account-books throw much light on the economic and social conditions of the period. One finds that all the big accounts were paid by small instalments covering long periods; for instance, a carding-engine delivered on the 13th April, 1837, was paid for in the following way; £10 was paid in cash on delivery, £20 on September 9th, and the balance at different times up to July 31st, 1839. The cost of carriage was usually shared by the vendor and buyer: machines sent to Merthyr, Brecon, or Cardiff being paid for by the vendor to Llanidloes station; and those sent to Cardiganshire and Carmarthenshire to Aberystwyth station.

A bill for eight shillings and seven pence due to J. and R. Davies in 1848 from a Dinas Mawddwy man is marked as "settled by meat", and there are several instances of small payments in kind.

The information concerning maid and men servants is not without interest. In the "account of Rachel Brees our servant", it is stated that she agreed to serve for one year from the Kalends of May 1841 (*Calan Mai*) to May 1842 for the sum of three pounds. On June 2nd, she was paid one shilling on account. On March 28th, 1841, her employer paid sixpence on behalf of Jane Roberts, "for the missionary", and this item occurs several times in the accounts of different servants, the sum of course being deducted from the year's wages. John Roberts, who began to work for the Davieses on the winter Kalends (*Calan Gaeaf*) 1840, seems to have become an old and trusty servant. But his hours of work, too, have been recorded meticulously. When he began work, John Davies paid for two chisels for him at sevenpence and tenpence, to be deducted from his wages. On December 25th, 1840, he "lost Christmas day", a practice which seems to have been very general amongst the servants of the age, but which is always carefully recorded against them; on January 30th, he "lost half to cill his pig", and on April 3rd, 1841, he "lost one day to bury his father in law". In 1840, too, David Griffiths, smith, began to work at Dol-goch for six shillings and sixpence a week. These statistics reveal much of the struggle for existence of the Welsh peasant and artisan during the hard years of the last century.

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In view of the gradual disappearance in Wales of rural industries such as those described, it is a matter for satisfaction that the National Museum of Wales is taking steps to secure, before it is too late, as complete a range of evidence relating to such industries as is possible. Thus, in the present instance, as stated, the whole of the plant of the Llanrhystyd Yarn Factory has already been acquired, together with the factory account books still available. I am permitted by the Director to state that ultimately, when extensions of the Museum permit, the plant will be reconstructed as nearly as possible in its original lay-out and that the policy of securing material relating to other local industries of Wales will be actively pursued, so that future generations may learn of factors, now vanished, which have contributed to the development of Welsh culture.

[Note.—The plan (Figure 1) of Llanrhystyd village has been drawn by my colleague, Mr. W. F. Grimes, B.A.; the photographs have been supplied by the National Museum of Wales.]

## **POSTSCRIPT**

The entire plant of the woollen yarn factory at Llanrhystyd, Cardiganshire was moved to the National Museum of Wales.