

England One Hundred Years Ago.

From an address delivered not long since by Mr. Thomas Ashbury, C.E., before the Manchester Association, we extract the following as to what was the state of affairs in England a hundred years since:

"We need not further consider the engineering works of the past ages, but come at once to the period of say about a century ago, or at all events the period when George III. began to reign (1760), and glance at the state of our own country at that time, the better to understand and appreciate the advantages and blessings of the present time.

"One hundred years ago England could hardly be called a manufacturing country, as we imported almost everything except corn, wool, and flax; iron from Spain, Germany, Sweden; pottery from Holland; hats from Flanders; silk from France; cloth and carpets from Belgium. One hundred years ago we had, as a country, fallen very low. Our cotton, woolen, flax, machine, etc., manufactures were struggling into birth; we could not keep the water out of our coal pits; we could not build steam engines; we could not build a church fit to be seen; we had no harbors or docks; we had no ships fit to go to sea; we had no literature worthy of our nation; we had our roads swarming with highwaymen. We had our army and navy composed of prisoners or pressed men captured openly; we had gibbets at nearly every cross road in the country; we had bribery and corruption of the grossest kind at Parliament elections; we had drunkenness, profligacy, and brutality, not only among the ignorant, totally neglected, common people, but also among the so-called upper classes; we had public abominations and obscenities that were not surpassed in the days of Nero; we had bull baiting, cock fighting, men fighting, dog fighting, badger drawing, and other coarse, ferocious, savage sports (pigeon shooting, unfortunately, still exists); we had the pillory, and men and women placed there for disgusting crimes, and crowds as foul as the criminals would pelt them with stones and rotten eggs, and horrid scenes were of common occurrence; we had women publicly whipped as well as men, and all feelings of refinement and delicacy were smothered in the licentious tendencies of the people; we had women and girls working down our coal pits; we had blasphemy, brutality, skepticism, irreligion, atheism, prevailing among all classes and causing the ships, the barracks, the works, the clubs, and even very many of the English homes to be turned into places of reveling and vice, disgracing the English name, and only worthy of the demon of darkness; we had, however, a few manly, plucky, brave men, who amid the darkness, drunkenness, and vice endeavored to educate, lift up, and arouse the people to a purer and more noble life; but these men fought against tremendous odds, for some of them were carried off by press gangs as sailors or soldiers, some were publicly whipped out of the town, and even in Salford the very first use made of the new town fire engine was to drench that noble, godly man, John Wesley, when he boldly and courageously 'bearded the lion in his den,' and publicly reprobated and exposed the prevailing vices and iniquities of our sister borough.

"James Watt, while learning his trade in London, had to keep his house, and durst not walk abroad for fear of being seized and sent to labor as a sailor on our then 'floating bells,' or on our plantations in India or America. One hundred years ago there was in Scotland a veritable slavery class of colliers and salters, and it was only in 1799 that this was finally abolished. One hundred years ago the main roads in this country had ruts four feet deep in many places; in fact, one writer says the ruts were navigable; another says they were like the roofs of houses put together, and they had only just superseded the pack horse and bridle paths. One hundred years ago hanging was common for nearly all offenses; human life was little thought of. One hundred years ago or thereabouts, the first eight bags of cotton arrived in Liverpool, and the Custom House officer seized them as not being a product of the United Kingdom; now we import £60,000,000 worth per annum. One hundred years ago our shipping did not reach two millions sterling; now the sailing of our own and foreign ships runs up an average of forty-five millions sterling. In the year 1777 the borough of Liverpool bought up the revenue of its manorial rights for £2,350; one hundred years after, the annual revenue from the same source was £250,000! One hundred years ago there were no public docks in London or anywhere else. One hundred years ago the mail coaches had just begun to run; now our railways carry 700 millions of people in the United Kingdom every year. One hundred years ago ballooning was in vogue, and seemed destined to achieve great things; a voyage was made from England to France; no real progress in this direction can be recorded.

One hundred years ago, or thereabouts (1776), independence in America had been declared. One hundred years ago Arkwright had just invented his spinning machines, looms, etc. One hundred years ago or a little more, the country was astonished at the recent erection of the first stone lighthouse. (Smeaton, 1759.) One hundred years ago Watt had just invented the condensing steam engine. One hundred years ago Brindley had just finished his first great canal and Worsley tunnel. One hundred years ago England imported nearly all its iron, for Henry Cort only invented 'puddling' in 1783. One hundred years ago there was no gas or electric light, no high pressure steam engines, no steamboats, no telegraphs, no railways, etc. The working men of Lancashire one hundred years ago had precious little book learning, but an enormous amount of *brain*

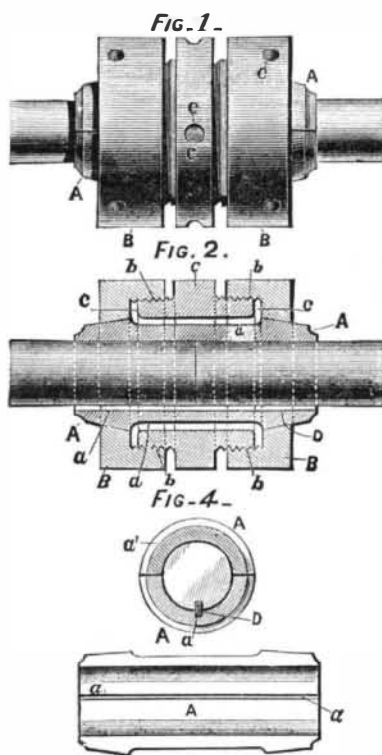
power. Many of the principal inventions were made by them and large fortunes was the result to some. They had great physical strength, could walk long journeys with heavy loads, and their fare was simple, generally milk, bacon, and some kind of oatmeal, one kind of which was thick and hard, and was called 'jannock,' since become in Lancashire synonymous with anything genuine and thorough. The goods were principally carried by packhorses. John Kay, of Walmsley, near Bury, the inventor of the 'fly shuttle,' made his escape from a riotous mob by being made up into a pack and carried away on the back of a horse. He died in Paris of a broken heart, guilty, like many other men, of having invented something for the good of Lancashire people, who turned against him for it.

"Tennyson has hymned the praises of our wondrous 'mother age,' and bids us remember how much better 'fifty years of Europe than a cycle of Cathay.'

"Every one can see the great contrast between the material condition of to-day and that which existed centuries ago. Take the last century or thereabouts; the merely material, physical, mechanical change in human life is greater than occurred in the 1,000 years, nay, even 2,000 years or more, that preceded it. In England this material change has been more rapid than in any other country, and is beyond parallel in the world's history. Yet the question has been asked in our times, 'With a thousand times the resources of any that preceded it, does it use them to a thousand times better purpose?'

SHAFT COUPLING.

The engraving shows a device by which the ends of two shafts may be quickly and effectively joined. The bore of the two sleeve sections, A, is slightly smaller than the shaft



GOLDEN'S SHAFT COUPLING.

they are to embrace when they are put together. In one section the key seat, *a*, is formed. The sections are tapered toward the ends and provided with a slight recess, *a'*, to allow the central collar, C, to turn freely on them. This collar is provided with two circular projections, *c*, one having a right hand and the other a left hand screw thread, and is bored sufficiently large to slip readily over either end of the sleeve. The collars, B, are each provided with a conical shaped bore sufficiently large to closely embrace the tapering ends of the sleeve, and are formed with projections on the inside which have bores, *b*, threaded to correspond with and engage the threaded projections on the central collar. The collar, C, has four spanner holes, and the collars, B, two each.

After the collars, B and C, have been slipped over the ends of the shaft, the latter are brought together and the key placed in position. Then the sleeve sections are placed in position, and the collars, B, brought in contact with the central collar. By turning the collar, C, the collars, B, are drawn toward the center, and the sections are tightly pressed against the shafts, which they firmly hold.

This invention has been patented by Messrs. T. E. and J. P. Golden, and further particulars may be had by addressing Golden Bros., Columbus, Ga.

SLATE for roofing originally costs, per square, \$4.50, and lasts at least 60 years; boards cost \$2.00, and lasts 8 years; shingles cost \$4.00, and last 12 years; corrugated iron costs \$6.00, and lasts 20 years; and tin costs \$6.50, and lasts 20 years. Making the average cost per annum as follows: slate, 7½ cents; boards, 25 cents; corrugated iron, 30 cents; tin, 32½ cents; and shingles, 33½ cents. Making slate, without reference to other considerations than original cost and life, almost four times cheaper than boards, more than four times cheaper than corrugated iron and tin, and nearly five times cheaper than shingles.—*Slate Trade Journal*.

DECISIONS RELATING TO PATENTS TRADE MARKS ETC.

United States Circuit Court.—Northern District of Illinois.

CURRAN *et al* vs. BURDSALL.—PATENT LUMBER DRIER.

Blodgett, J.:

Where a patentee after selling all his rights under the patent and subsequently purchases an older patent to defeat his assignee's rights, *Held* that such proceeding is manifestly unjust and inequitable, even if the older patent clearly anticipates the patent for the device sold.

Where a patentee has sold all his right, title, and interest in, to, and under his patents and subsequently purchases an older patent, *Held*, that by such subsequent purchase an assignee cannot be dispossessed of the full benefit of what has been acquired from the patentee.

Where others are associated with the patentee in the purchase of a prior patent subsequent to a sale by the patentee of all his right, title, and interest in, to, and under his own patents, *Held* that the prior sale operates as a license as against all of the purchasers.

If others join with the seller in the purchase of the prior patent, such owners must look to the original seller for their compensation.

United States Circuit Court.—Southern District of New York.

THE ATLANTIC MILLING COMPANY vs. ROBINSON.—TRADE MARK CASE.

Wallace, J.:

The proofs show that in 1861 the firm of Alex. H. Smith & Co., then the proprietors of the Atlantic Mills, at St. Louis, Missouri, adopted the word "Champion," and employed it to distinguish a particular quality of flour made and sold by them. From that time until the present it has been used as a trade mark either by that firm or the several firms and corporations that became the proprietors of the property and business of the Atlantic Mills. The flour to which it was applied was particularly adapted for the Southern export trade, and became generally known and recognized as the production of the Atlantic Mills by the word which was thus used to designate it. The complainant has not made proof of any formal transfer by Alex. H. Smith & Co. to any of the succeeding proprietors of the Atlantic Mills of the right to use the trade mark, and if complainant has acquired that right it is because it passed upon the purchase of the mill property and business as an accessory thereof to each purchaser who became the proprietor of the premises, including the complainant, without any agreement respecting the trade mark.

The right to the exclusive use of a word or symbol as a trade mark is inseparable from the right to make and sell the commodity which it has been appropriated to designate as the production or article of the proprietor. It may be abandoned if the business of the proprietor is abandoned. It may become identified with the place or establishment where the article is manufactured or sold to which it has been applied, so as to designate and characterize the article as the production of that place or establishment rather than of the proprietor. A trade mark of this description is of no value to the original proprietor, because he could not use it without deception, and therefore would not be protected in its exclusive enjoyment. Such a trade mark would seem to be an incident to the business of the place or establishment to which it owes its origin, and without which it can have no independent existence. It should be deemed to pass with a transfer of the business, because such an implication is consistent with the character of the transaction and the presumable intention of the parties.

Decree ordered for the complainant.

Non-Freezing Wet Meters.

Chloride of magnesium is a by-product of salt working, found in the deposits lying above the true rock salt. Three parts of this material are dissolved in five parts of warm water, and diluted to 22-23° Baume, to make the solution for filling meters. The salt costs, in Dessau, 10 marks per 100 kilos. In 1879 a number of new and old meters at a small station were charged with this mixture; and the result has been so favorable, that its use has since been extended. The solution is used in the first filling of consumers' meters, precisely the same as water, and the corrections for level are made with water in the ordinary way at the following visits of the inspectors. After two or three adjustments, however, the water line is found to maintain remarkable constancy, as the solution does not evaporate. In consequence of this feature, there are fewer deposits of water in consumers' pipes.

The greatest advantage on the side of the chloride of magnesium, however, is its power of resisting frost. In Central Europe this is a most important consideration; and when, as in this case, a non-freezing solution is also non-corrosive and non-volatile in hot weather, the argument on behalf of adopting it is conclusive. It might have been thought that the use of this solution instead of water would be an additional expense. But, as already stated, the contrary is the fact; for taking into account the prevention of damage to the meters from frost, the diminished charge for inspection and watering (due to the constancy of the water line), and the saving in special cold weather inspection, there is a considerable economy from the use of chloride of magnesium, apart from the great advantage of preventing complaints from consumers during severe frosts.