

Great Telegraph Case.—Uncertainties of Law.

In our last number we noticed the decision of Judge Kane, of Philadelphia, in reference to the Patent Telegraph Case, in which the parties were French vs. Rodgers. The action was for an infringement of Morse's patent by the Telegraph line from Philadelphia to Baltimore. This line has been termed the "Bain Line," because a chemical telegraph was employed on it. There was also a local arrangement of battery, the invention of Mr. Rodgers, used on it. The complainants alleged that all the patents of Morse were infringed by the defendants, viz., electro-magnetic action, a local battery, and Morse's Chemical Patent. The decision rendered and pronounced by Judge Kane, as published in some papers, is a very extraordinary instrument, and we cannot refrain from making some comments upon it, as it is a public document.

We have looked over the evidence given; it forms two huge volumes, and we cannot but feel that, in relation to the practical development and discovery of the principles embraced in the Electro Magnet Telegraph of Prof. Morse, our country is more indebted to Prof. Joseph Henry than any other living man, and he has neither received the public credit nor honor, which are justly his due, much less any remuneration for his invaluable discoveries. He was the first man in the world who moved machinery by an electro magnet, and he is the inventor of the "Electro Magnet" to do so, and without this Morse's Telegraph would yet be in oblivion.

The decision rendered amounts to this,—Morse made the first "Recording Telegraph," therefore every recording telegraph is an infringement of Morse's patent. We have a different opinion, and believe that we can prove, by good logic and plain facts, that the said opinion of Judge Kane is incorrect. Let us quote his opinions fairly:—

"Mr. Morse's patent of 1840, in all its changes, asserts his title to two distinct patentable subjects; the first, founded on the discovery of a new art; the second, on the invention of the means of practising it.

"That he was the first to devise and practice the art of recording language, at telegraphic distances, by the dynamic force of the electro-magnet, or, indeed, by any agency whatever, is, to our minds, plain upon all the evidence.

"The third patent is for the chemical telegraph. We do not propose to enter on the discussion of this. The subject of it is clearly within the original patent of Mr. Morse, if we have correctly apprehended the legal interpretation and effect of that instrument. We will only say, that we do not hold it to have been invalidated by the decision of the learned Chief Justice of the District of Columbia, on the question of interference. The form of the two machines before were not the same; and the leading principle of both having been already appropriated and secured by the Magnetic Telegraph Patent of 1840, nothing remained but form to be the subject of interference."

The Chemical Telegraph of Bain and the Electro Magnet Telegraph of Morse are totally different inventions, and in our opinion the Chemical Telegraph did not, does not, and can not infringe Morse's patent. We could not, with the counsel for defence (although it was necessary to bring in evidence), object to the validity of Morse's patents. Judge Kane's opinion on this point, we believe, is correct and able, but the invention of Mr. Morse consists in this, that he transmits messages to a distance, using the mechanical action of an electro magnet to do so, by making marks. It consists in nothing more, and is no less, and is a beautiful invention, and we would not ruffle a single plume which justly belongs to its inventor. The Chemical Telegraph consists in transmitting messages to a distance, not using mechanical action, but chemical action to do so, by making marks. The one telegraph cannot do what the other does at all. Morse's telegraph may be compared to the action of chiselling out letters on a plate: Bain's to etching them out. Morse's telegraph is indebted to the Electro Magnet to make the marks: Bain's uses no magnet at all. Morse's marks are made, not by the direct current of galvanism from a battery, but the secondary current force of a magnet: Bain's marks are

made with the current direct, using no secondary current force. The batteries of the two are also different. We cannot conceive how any man, possessing the least scientific skill, can fail to perceive that the two telegraphs are as different in essence, principle, action, construction, operation, and the effects produced, as light and darkness. The great error in the decision, in our opinion, consists in overlooking the fact that the *Recording Telegraph* is not an art in the general sense, but only a branch of it. *Telegraphing* is an art, and signalling and marking telegraphs, of which there are many, are but branches; the decision rendered, makes the recording telegraph tantamount to the *whole art*, it therefore over-rides all the testimony adduced, and hence the two huge volumes of evidence might as well have been kept in the drawers of the defendant's counsel, without submitting it at all; in fact the evidence is shabbily treated, and former decisions of other courts, totally different, are jauntily passed over. The plain error of the decision, to our view, lies in the first paragraph we have quoted. There can be no such a thing as an art apart from a process, and the very word *recording*—this *adjective*—relates to the process, it qualifies the *act*, and lawyers should always have the organ of comparison large enough to distinguish the difference between the *act* and an *act*. What is an art? Simply a process or manner of doing a thing. Recording messages without any reference to the means of doing so, is a mere abstraction,—like an abstract soldier without a gun, blade, bayonet, or any kind of arms whatever. The common and true understanding of the term "*art*" is the manner of doing a thing. Thus we have the *Art* of Printing in general, but it, like the different telegraphs, embraces different processes, all of which are distinct in themselves, and entirely different inventions. We have the art of wooden block printing (the oldest), the art of movable type printing, copperplate printing, and lithographic printing. These are all totally separate and distinct arts, but still they are all embraced in "the art of printing generally considered." Judge Woodbury, in his decision in the Morse and House trial, in Boston, 1850, held an *art* to be just as we have expressed it—a process or means of doing a thing, not a mere abstraction, as in the recent decision—raised up into a principle, and which, if once admitted into our Federal Courts, will destroy every principle of equity in them whatever.

There are two patentable principles in Morse's patent: one is the art, process, or means (we use the word *art* as it is understood in common usage, viz., to be the way of doing a thing) of sending telegraph messages, the other the product of the art, the recorded message, which is the same as the word "manufacture," in the old laws.

Our definition of Morse's legal claims is radically different from that expressed in the decision quoted. Judge Kane defines the product or manufacture to be the art; we, the process; hence he makes the manufacture or product cover different processes and other products, whereas a product, in the eye of all law, is specific and inflexible, the least variation from which is a different product (manufacture), and this is what we believe of the recorded messages of the Magnetic Telegraph and every other. He considers the product or messages produced by the Morse Telegraph, to be patentable—so do we for we believe, the word "manufacture," in the old patent law, covers this. But neither the action nor the message product or manufacture of the chemical telegraph are like those of Morse's telegraph; they are entirely different. There is a greater difference between the two telegraphs, in every point, than there is between the two printing arts or processes of movable type printing and lithographic printing—both recording arts, but distinct inventions.

It is the duty of our Courts to judge every question upon its real merits; the legal rights of any man, if they are not a day old, are just as sacred as those of one hundred years old, and if our courts do not view questions in this light, then law, with them, is a mere question of privilege, rather than of right and justice. There is not the least resemblance, in any respect, between the inventions of Morse and Bain, and surely it cannot be equity to take

away from one man that which he has invented, entirely distinct and different, and give it to another, who never invented a principle of it; yet this is what the recent decision has done. In respect to the complainants, we could not conscientiously feel easy, in being awarded property that did not belong to us; but with the author of the Bridgewater Ethical Treatise, we think this is one of the questions which, between man and man—the complainant and defendant—will yet be settled before a higher tribunal than that of an earthly court.

We feel deeply for those against whom the decision has been rendered, for we honestly and conscientiously believe, without any disparagement to Prof. Morse's invention, that the inventor of the Chemical patent has been deeply wronged and his property, in every sense of the word, has been awarded to those who have not the least moral right to it. We could not, in conscience, feel easy, with such a decision, if we were in the complainant's place. The decision does not affect the Merchants, Bain Lines in this State.

Scientific Memoranda.

BREAKING AND MENDING LEGS.—An Italian practitioner, Dr. Francesco Rizzoli, sent sometime since to the Surgical Society of Paris, a paper on a peculiar plan of his, for rectifying accidental lameness, occasioned by the shortening of one leg, which sometimes occurs after fractures of the thigh. Dr. Rizzoli has very coolly advised, and has actually practised in one case, the fracture of the thigh, allowing the fragments to unite without reduction, so as to restore the correspondence of the two limbs and allow his patient to walk straight—this is a hard dose truly.

GLASS FACINGS FOR BUILDINGS.—A correspondent of the London Builder, suggests the substitution of glass for the facings of buildings; not translucent or crystal glass, but glass ground, of the requisite thickness and strength. Such a material, he adds, would not absorb the heat and smoke constantly floating in the air, but every shower would wash them off, and buildings would look as fresh and new as ever. And as glass, from recent improvements, can be moulded to any shape, almost as perfectly as if cut, the most exquisite Gothic and other ornaments could be produced.

GREAT BRIDGE.—A bridge is now contemplated to cross the Severn and connect Monmouthshire and South Wales with Bristol and the West of England. It is to be granite, 140 feet wide, with arches of 324 feet span and 120 feet above the highest spring tides, so that the largest ships will be able to sail under. On each side of the bridge will be shops, the rent of which will pay a good part of the interest on the cost. There will be room for a double railroad track and a carriage road, besides covered colonnades for foot passengers.

HOLLOW BRICK BEAMS.—Some very interesting experiments were recently made in London, to test the strength of various mortars and cements. A hollow brick beam put together with Portland cement was broken down with a weight of 50,652 pounds. Another beam, whose dimensions were 21 feet 4 inches bearing between the piers, 2 feet three inches thickness at the bottom of the beam, and 1 foot 6 inches at the top, the height being 4 feet two inches, was tried. The layers of hollow brick, besides being joined with Portland cement, were held together by thin bands of iron passing through them, and the whole remained standing during the exhibition.—When the load placed on the beam had been increased to 62,800 pounds, a crack was observed running right up the centre, and two others at equal distances on either side converging towards the centre as they extended upwards. Then the abutments were thrown out of the perpendicular, one to the extent of a foot, the other an inch and a half. Finally the beam broke right in half, the experiment terminating in the most satisfactory manner for the reputation of hollow brick construction and Portland cement. It may be stated as a curious fact in connection with this supposed new species of building material, that the use of hollow bricks was well known to the Romans, and that in Tunis, at the present time, they are in constant requisition.

SIZES OF SHOES.—The Lynn Dictionary for 1851, says a size is the length of one "barley-

corn," or one-third of an inch. A size stick is thus formed:—

Take a rule or piece of pine wood thirteen inches in length, and divide it into thirty-nine equal parts, of one-third of an inch each. The first thirteen are left blank, and counted nothing. The second thirteen are called children's sizes. The third thirteen are called men's and women's sizes; each marked from one to thirteen. Thus nine inches is a man's size, No. 1; ten inches is No. 4; eleven inches No. 7; twelve inches No. 10.

IMPROVED CLOCKS FOR DENOTING THE REVOLUTIONS OF A STEAM ENGINE.—An ingenious and simple contrivance has been invented by Capt. A. C. Miner, of the steamboat Charles H. Haswell, employed in the service of the U. S. government, which is intended to denote the revolutions of a steam engine.—The improvement consists of four wheels, three inches in diameter, and occupying a space of only four inches square. Each wheel has four hundred notches, or teeth. The machine works by means of a pendulum and cranks, one wheel performing an entire revolution pushes forward the second wheel one notch, so that the first wheel has to perform four hundred times four hundred revolutions, before the second wheel performs one entire revolution. The second wheel in performing one revolution pushes the third wheel forward one notch only; and the third wheel pushes forward the fourth wheel in the same way. The machine, therefore, is calculated, with thirty revolutions of the steam engine to a minute, to run for four hundred and fifty years, without any alteration. As singular as this may seem, we are assured that in practice it is correct. One is in successful operation now on board the Chas. H. Haswell. It is a mechanical curiosity.

[We copy the above from one of the best papers published in this country, for the purpose of correction. The machines described are employed on every steamship which leaves this port, and have been used on steam engines and steamships thirty years at least.

NEW MOTIVE POWER.—Mr. Taggart, of Roxbury, Mass., exhibits a model of an engine whose propelling agent is atmospheric pressure. The power is obtained by regular explosions of small quantities of common gunpowder. Eminent chemists have decided its operation to be feasible.—[Exchange.

[The gunpowder then must be the propelling power, and as such it has been often tried before. Its nature is unfavorable to its usefulness.

Factories in Louisiana.

The editor of the Louisiana Floridian has lately been on a visit to Woodville, and has made an extensive examination of the manufacturing establishment at the place. He says it is now making 30,000 yards of cotton cloth per week.

The factory is situated about a mile from the town on the West Feliciana Railroad, and comprises one brick building four stories high, which contains the whole apparatus for manufacturing. There are one engine, 80 horse power, 2 lappers and willows for preparing the cotton, 36 cotton cards, 2 drawing frames, 4 railway heads, 5 speeders, 1 batting card, 2 wool cards, 1 jack, 4,000 spindles, 2 spoolers, 2 wrappers, 4 dressers, 80 looms, and all corresponding machinery calculated to do 38,000 yards per week.

The whole erected and put in operation by Mr. J. D. Woodworth.

The capital invested \$75,000; profits when in full operation are about 50 per cent. The profits for the last week were \$472. The number of operatives is generally 125, at a cost of \$4 25c. per week.

For the operatives, there are 3 brick buildings 2 stories high, with a basement, 75 feet long. Each building contains four tenements.

Cure for Diarrhea.

The following receipt prepared by a physician is a good cure for diarrhœa. The dose is for a grown person:—

Creosote, two drops; aromatic spirits of ammonia, thirty drops; peppermint water, two ounces—make a mixture, take one-half in the morning, the remainder in the evening; diet—arrow root.