

Automatic Sprinklers.

From a recent circular issued by the Boston Manufacturers' Mutual Fire Insurance Company, we learn that automatic sprinklers were placed over the whole of three cotton mills, except the weaving, by Col. T. J. Borden, of Fall River, in 1874. The system was adopted in a few other mills, without any urgent suggestion from the underwriters, in subsequent years to 1877 inclusive. In 1878, the officers of this company became satisfied that it would become the most efficient safeguard against the increasing hazard of our risks, and should be steadily presented for general adoption. The most thorough tests and experiments were then made upon automatic sprinklers by C. J. H. Woodbury, C.E., now one of the vice-presidents of this company, under whose supervision most of this report has been prepared. The result of this work has been largely in suggesting improvements upon automatic sprinklers, and preventing the acceptance as unsuitable for protection against fire of many varieties containing serious defects.

The true measure of the value of automatic sprinklers as a protection against fire is best shown by the experience of this company for fifteen years, on property where this company has shared in the insurance.

The introduction of automatic sprinklers has reduced the average loss per fire, within the experience of this company where they were in service, to 8.3 per cent, and the average loss per claim to 6.9 per cent of what it is apparent that such fires and claims might have been under the previous conditions of protective apparatus. But any classification must be made on arbitrary divisions, and the proportions of each class might be differently placed by another, yet in any case the result would show a very great reduction of fire loss.

Automatic sprinklers have their limitations and may not stop a fire which starts elsewhere and burns to the room where they are installed, although there have been many instances where they performed valuable service under such conditions.

They are not suited to the protection of large open spaces, or to deep piles of combustible material. Manufacturing processes generating corrosive vapors, or producing adhesive deposits upon automatic sprinklers, impair their efficiency.

Exercise for Lame Horses.

The Breeder and Sportsman, of San Francisco, describes the swimming tank on the famous Southern ranch in California. It is built of concrete and is about eight feet deep, 30 feet wide and 90 feet long. There are suitable pipes for filling and emptying it and facilities for warming the water. The horse is taken in and out from the platform shown at one side. Salt water is frequently used, as it acts like a tonic on the horses. In swimming the horse takes the same or even more violent exercise than he would trotting on the track, while there can be no injury to the feet or limbs. It has frequently happened that famous race horses have been taken lame during the season—so lame that it was necessary to give them complete rest for fear of injuring their feet, as they surely would do if exercised on a hard track. When these horses went lame it was of course supposed that their season was ended, for two or three weeks of idleness would surely unfit them for rapid work. It was a great surprise, therefore, when they turned up in perfect training and entirely over their lameness. At first there was a great mystery about the treatment, but it was soon learned that the horses were made to swim every day, thus giving them all the work they needed and at the same time preventing injury to the hoofs by striking on the hard track.

Plating the Monterey.

The armor plating of the Monterey is now in progress at the Union Iron Works, San Francisco. The plates are finely finished, their outside surfaces being as smooth as glass.

They are 24 feet long, and vary in thickness from 14 inches to 7 inches. The outside surface of the armor is moulded so as to preserve the line of the ship's side. The inner surface is curved, being thicker at the water line than at the main deck, and also diminishing in thickness toward the lower edge. The inner surface of the armor plate will be backed by hard wood, varying from 4 to 7 inches in thickness.

The plates are drilled to receive $2\frac{1}{2}$ inch bolts. These bolts pass through the armor plate, then through the sheathing and the vessel's side plate, and are to be fastened by screw bolts on the inside. In addition to these fastenings long bolts will be passed through the armor plate in a vertical direction. The upper ends of these bolts will be fastened to the steel plate beneath the main deck, and the lower end to the angle plate on the vessel's side, specially prepared for it. Between 3,500 and 4,000 pounds of bolts will be used to secure each plate in position.

The two plates just received are two of the smallest that will ultimately form the Monterey's armor. They will all be about the same average thickness, and will

vary in length from 24 feet to 32 feet. The weight of the heaviest of the armor plates will be 40,000 pounds. When finished it is estimated that not less than 1,500,000 pounds of steel will have been used for the total armor plating of the Monterey.

DECISIONS RELATING TO PATENTS.**Supreme Court of the United States.****ANSONIA BRASS AND COPPER COMPANY vs. ELECTRICAL SUPPLY COMPANY.**

Decided March 14, 1892.

Letters patent No. 272,660, issued February 20, 1883, to Alfred A. Cowles, for an insulated electric conductor, *Held invalid.*

The application of an old process or machine to a new and analogous purpose does not involve invention, even if the new result had not before been contemplated.

If an old device or process be put to a new use which is not analogous to the old one, and the adaptation of such process to the new use is of such a character as to require the exercise of inventive skill to produce it, such new use will not be denied the merit of patentability.

Where a patent sued upon describes a method which differs only in degree and not in kind from a previously employed method, and where the utmost that can be said of the patented process is that it produces a somewhat more perfect article than was previously produced, *Held* that the patented method involves no novelty within the meaning of the patent law. (Citing *Smith vs. Nichols*, 21 Wall., 112.)

Appeal from the Circuit Court of the United States for the District of Connecticut.

STATEMENT OF THE CASE.

This was a bill in equity for the infringement of letters patent No. 272,660, issued February 20, 1883, to Alfred A. Cowles, for an insulated electric conductor.

His method of preparing the wire was stated in his specification substantially as follows: The wire was first passed through a braiding machine, and a layer of cotton or other threads braided about it. The covered wire was then passed through a vessel containing paint, preferably white lead or white zinc ground in oil and mixed with a suitable drier. A second braiding was then applied directly upon the fresh paint; the threads thus braided upon the paint force the paint into the first braided covering, and at the same time the paint oozes through between the threads. In this way the paint was incorporated throughout the braided covering and filled up the pores; and the wire thus perfectly insulated, and there was no possibility of inflaming the covering.

The most satisfactory evidence of the prior use of a non-combustible covering for electric wires is found in the testimony of Edwin Holmes, manufacturer of an electric burglar alarm.

The method described by Cowles differs only in degree and not in kind from that described by Holmes. In other words, it is a more thorough doing of that which Holmes had already done, and, therefore, involving no novelty within the meaning of the patent law.

U. S. Circuit Court of Appeals—Ninth Judicial Circuit.**REGAN VAPOR ENGINE COMPANY vs. PACIFIC GAS ENGINE COMPANY et al.**

Decided January 30, 1892.

An instrument purporting to assign an invention yet to be made does not operate as an assignment of such invention when made, but is a mere executory contract.

An indorsement of such an instrument assigning and transferring all "right, title, and interest in and to the above agreement" passes only the written instrument itself, with such right of action thereon as had not at the time of the indorsement become vested in the indorser. (Reversing *Regan Vapor Engine Co. vs. Pacific Gas Engine Co.*, 57 O. G., 1886.)

Appeal from the Circuit Court of the United States for the Northern District of California.

On May 15, 1886, Regan and Garratt entered into an agreement wherein they stated that we "do hereby license and grant and convey each to the other," throughout certain States and Territories, the license to Garratt being for the Pacific coast—

"All such inventions and improvements, whether patented or not, which may be hereafter made by either of us—"
in gas engines and the mechanism by which they are operated.

The lower court decided that the Regan-Garratt agreement of May 15, 1886, operated as an assignment of an invention which Regan three years afterward, on August 6, 1889, made and secured a patent for, as well as the patent issued on April 1, 1890, the same being a reissue thereof, and which was issued to and in the name of the appellant. Accordingly a decree was entered which in effect decides that the appellant has no title to the patent in suit for the Pacific coast and that the Pacific Gas Engine Company has.

The agreement of May 15, 1886, is not the assignment of a patent, though it contains language—"grant and convey"—sufficient for that purpose, if there was any thing to assign. It may be good as an agreement to sell and assign a future invention, but it cannot operate as a sale or assignment of such an invention even when made. No one can sell that which he hath not. (Comyn's Dig., tit. "Grant," D.) A man cannot grant all the wool that shall grow upon his sheep that he shall buy afterward, for there he hath it not actually or potentially. (Bac. Abr., tit. "Grant," D.)

Chancellor Kent says (2 Comm., 468):

"The thing sold must have an actual or potential existence, and be specific or identified, and capable of delivery; otherwise it is not strictly a contract of sale, but a special or executory agreement. . . . But if the article intended to be sold has no existence, there can be no contract of sale."

Benjamin, in his work on sales (sec. 78), says:

"In relation to things not yet in existence, or not yet belonging to the vendor, the law considers them as divided into two classes, one of which may be sold, while the other can only be the subject of an agreement to sell—of an executory contract. Things not yet existing, which may be sold, are those which may be said to have a potential existence; that is, things which are the natural product or expected increase of something already belonging to the vendor. A man may sell the crop of hay to be grown on his field, the wool to be clipped from his sheep at a future time, the milk that cows will yield in the coming month, and the sale is valid. But he can only make a valid agreement to sell, not an actual sale, where the subject of the contract is something to be afterward acquired, as the wool of any sheep, or the milk of any cows, that he may buy within the year, or any goods to which he may obtain title within the next six months."

A man may make a valid agreement to sell an invention not yet made by him, but he cannot make a valid sale thereof.

Curtis on patents (sec. 160) says:

"The statutes, however, which authorize the assignment of an invention before the patent has been obtained appear to embrace only the cases of perfected or completed inventions. There can, properly speaking, be no assignment of an inchoate or incomplete invention, although a contract to convey a future invention may be valid, and may be enforced by a bill for specific performance. But the legal title of an invention can pass to another only by a conveyance which operates upon the thing invented after it has become capable of being made the subject of an application for a patent."

Mr. Robinson, in his work on patents (vol. 2, sec. 771), says:

"A contract for the transfer of inventions not yet in being is valid as a contract, but is not an assignment. The subject matter of an assignment is an existing invention, not only conceived as an idea of means, but actually reduced to practice, and thus invested with the inchoate or perfected right to that monopoly which must always pass with the invention in this form of conveyance. An intended or incomplete invention rests merely in purpose and expectation. It does not clothe the proposed inventor with any special privileges or entitle him to any special rights in the monopoly which, if his purposes were accomplished, he might be able to secure. The transfer of such future inventions is a mere executory contract to assign them if they happen to be made."

To this general rule there appears to be one exception, and that is where a patentee assigns a patent already issued, together with all future improvements thereon. It has been held that such assignments pass the title to the future improvements.

But that is not this case. Here there is no assignment of a patent with any improvements thereon. The document which constitutes the basis of appellees' claim is at most an attempted assignment of any independent inventions to be thereafter made by either of the contracting parties in gas engines.

The decree of the circuit court is reversed, and the case is remanded with directions to affirm the master's report.

Commissioner's Decisions.**HISEY vs. PETERS.**

Decided March 11, 1892.

In an interference between a patent and an application, where the question was not one of independent origination, but a dispute over the invention of the specific thing patented, the natural presumption existing in favor of validity of the patent is greatly strengthened by the fact that the junior party to the interference had full knowledge of the patentee's proceedings before the office, but was fifteen months behind him in filing his application.

Where a skilled workman is employed to embody an inventor's idea in practical form, the results are the property of the inventor unless they show that the workman has discarded the original idea and proceeded upon a wholly distinct and separate plan.