JOURNAL OF PATENT LAW.

INFRINGEMENT—PATENT FOR COLORING YARN—OLD AND NEW METHOD OF PARTI-COLORING.

We think it very important that inventors should understand the law of patents. To understand the mechanism of the government under which we live; to be familiar with the principles which control its policy, is a branch of education, the importance of which has been recognized by ancient as well as modern legislators, and in a citizen of a republican State it is essential to the maintainance intact of the government itself. If, then, it is important to understand the general laws of one's country, in which we are interested merely as citizens, how much more important is it that mechanics should understand those laws, the construction of which affects so directly the pecuniary interests of the inventor?

For the benefit of our readers, we have opened a department in our journal for the illustration of the principles which govern in the interpretation of Letters Patent, and in the construction and application of the patent laws. We might give merely the dry principles of law, without showing their appl cation to special cases; but we think that they would be less likely to be understood by the mass of our readers, and certainly less likely to be remembered. Hence we give, as our readers have already perceived, reports of cases determined by the courts in which, after certain facts are found, the legal principles applicable to them are considered and applied, and a decision rendered. Thns, the attentive reader, having become in a measure familiar with the legal method of reasoning, as well as the more familiar principles of patent law, will apply them in the consideration of his own cases, and his own rights being better understood, a saving both in mind and pocket will be likely to be the result.

We give, this week, the case of Smith *vs.* Higgins, decided by the United States Circuit Court, in which the plaintiff sought a judgment against the defendant for an alleged infringement of a patent for an "improvement in apparatus for parti-coloring yarn."

The patentee recites that yarns, heretofore, have been parti-colored either by printing or dipping skeins in a vat of dyeing liquor, with the parts not to be colored tied or clamped so as to exclude the dye, and states the difficulties attending the use of these modes, and also the nature of his own invention, namely, that it consists in coloring yarns that have been reeled by direct immersion in the dye, by means of movable frames adapted to receive and hold the skeins, and so combined with the dye vat as to admit of letting down the yarns to the determined measured distance, and then withdrawing and shifting them as required; and after giving a detailed description of the machinery used by him, he winds up by claiming "the method substantially as specified of parti-coloring yarns that have been reeled, by direct and free immersion, by means of frames carrying the reeled yarns, and combined with the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said frames, and measure the extent of immersion, substantially as set forth."

The yarns to be parti-colored are wound around two reels particularly described in the specification, and then the frame is suspended on a horizontal frame, also described; and as many of such reel frames, containing the skeins of yarn, as the horizontal frame will carry, can be in like manner suspended. A scale is then applied to one of the reel frames, and by turning a crank handle, the whole is let down into the vat to the depth desired, as indicated by the scale, depending on the figure to be produced. These reels may be inverted to dip the other end of the skeins in like manner, in the same vat, or in one of any other color, or the reels may be turned to bring other parts of the skeins in position to be immersed in the same vat, or in a vat of another color.

An idea of the machines which it was alleged were infringements upon this patent will be gathered from the opinion of the Court, rendering judgment for the defendant, a portion of which we give.

Nelson, C. J.—"The claim is not entirely free from difficulty in its construction. The phrase 'by means of frames carrying the reeled yarn,' may embrace not only the horizontal frame, upon which the reels are suspended, bnt the reel frames upon which the yarn has been reeled. The difference in the construction is material, for, if the reel frames are included, then the combination with the vat would be a different one from that on which the horizontal frame alone is embraced. Assuming, for the present, that the horizontal movable frame only is embraced, then the claim consists of a combination of this frame carrying the reeled yarns and the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said horizontal frame, and measure the extent of the immersion, substantially as described. The parts are not claimed—the combination only.

"The idea of parti-colored yarn in skeins, by free immersion in a vat containing the dyeing liquor, was not new, nor the measuring the extent of the immersion at the same time. The novelty consists in the machinery or means by which the parti-coloring is effected in equal and measured proportions; and, conceding the novelty of this combination, which we think is fully established by the evidence, the material question in the case is whether or not the means or machinery used by the defendants infringe upon it. In other words, do they use the combination of the horizontal frame carrying the reeled yarns, and the vat by means of the patentee's machinery, to let down and draw up the said frame and to measure the extent of the immersion, or do they use the combination by equivalent means?

"After the best consideration we have been able to give the case, we have come to the conclusion that these questions must be answered in the negative. We have already said that the idea of dyeing parti-colored skeins of yarn by free immersion into the dye, and at the same time gaging or measuring the extent of coloring of the skein, was not new—the idea is not the patentee's. He is entitled to the merit only of embodying it into machinery and adapting it to practical use in a new and superior mode to any that had preceded it. And in order to establish an infringement against the defendants, he must show that they are employing substantially the same description of machinery. If they employ machinery of a different description, a different mode of accomplishing the same result, the patentee has no ground of complaint.

"Now, in the first place, the defendants do not employ the reel frames of the patentee, upon which the skeins of yarn are reeled or placed, at all, nor any equivalent for the same, nor indeed any arrangement resembling them. And hence there is no necessity for the horizontal movable frame found in the patentee's combination, in the defendants' arrangement, as this horizontal frame is important only as connected with the reel frames. Nor is there, in fact, any frame resembling the peculiarities or functions of the horizontal frame employed by the defendants. And the machinery for letting down in and drawing up the skeins of yarn from the liquor in the vat, used by the patentee, is altogether different from that used by the defendants; and there is no arrangement at all used by them for measuring the extent of the immersion by machinery. By the arrangement of the defendants, the skeins of yarn are stretched upon two poles, one above the other, and while thus situated, the skeins are clamped by a clamp of wood, at a distance from the bottom desired to be colored, or rather fixing the measure of immersion. This clamp is attached to a frame independent of the two poles which support it. The poles are then withdrawn and the clamp frame attached to and carried by a lever operated by machinery, to the vat of liquor, and lowered into it; the clamps, which float, determining the extent of the immersion. This extent is not determined by the machinery, as in the patentee's arrangement, bnt is fixed in advance by the hand of the operator.

"The truth is that the defendants' device is but an ingenious improvement and adaptation of the old mode of parti-coloring by clamping the skeins of yarn and immersing them in the vat. Instead of immersing the entire skein, separate portions are colored at the same time, the clamp serving to exclude or stop the coloring material, and at the same time determining the extent of the immersion, this depending upon the portion of the skein to which the clamp is applied. I am entirely satisfied that judgment should be rendered for the defendant."

OUR PATENT LAWS—THEIR WONDERFUL INFLUENCE.

Much has been said on all sides in regard to the recent extension of the patent for sewing machines for 7 years more. Such an extension cannot be worth less than five hundred thousand dollars, and we do not see that it may not be worth nearer five millions. In the first place, the proprietors have already reaped half a dozen fortunes out of it; and in the next, enormous quantities are manufactured by other parties, paying five dollars in each case for the use of the patent. During the next seven years the business will be pushed, no doubt, and if every family in the United States is not supplied with one, it will be no fault of the men who are interested in its extension. Whether, upon the whole, this extension is a fair thing, might be difficult to decide; but this, at least, is certain, that the price has been lowered more than one-half very considerably, and yet there is no lady who has bought and has used one at a hundred dollars, who would sell it again at that price if she could not get another.

It is also certain that the patent system—that is, both the laws and their administration, are more equitably worked, and more beneficial in their operation in this country than any other on the globe. It costs less to secure the right, and yet the department is self-sustaining. It provokes more ingenuity and skill, beeause it secures to each man the benefits of his labors and inventive genius, and yet it does not give rise to any such serious or selfish monopolies as to prevent new inventions from coming into use. The few enormous fortunes that are realized only stimulate others, both to invent and to record their inventions, or to invest capital in bringing such inventions as can be made useful into public notice. The thousands of protests that die as soon as born, are the best proof of this fact.

Once in a while, however, something really good, great, and generally useful is struck out, patented, improved, advertised, and runs through the country with a rapidity and labor-saving effect truly astonishing. A sewing machine, a telegraph, a process for utilizing india-rubber, huve each produced a wonderful effect upon American habits and comforts, while in Europe they are comparitively unused from their excessive cost. The new milking machine, invented by a young man whose father was a large owner of cows, a machine that fairly pumps the milk out of the cow more naturally and easily than anything except the mouth of the calf, is one of these machines that promise remuneration to the inventor, and improvement in an operation practiced from the infancy of our race, or at least of civilization, without the idea that it ever could be improved.

The farmers now are doing everything in fact by machinery, and patents are to be found by the hundred for machines for every operation of man or horse in farm work. Steam plows to turn up the ground, patent harrows and drills to break clods and sow the seeds, mowing machines and reapers, threshing machines and fans, all are to be had in abundance and variety, through the agency of the patent system, far better in quality than those of England and far cheaper. All that used to cost man toil is accomplished by horse power, and it is confidently asserted, and we believe it will prove true, that steam will be made so flexible as more cheaply and easily to accomplish all the work of the traveler now performed by horses, whether it be plowing or hauling, reaping or threshing, traveling on the ordinary high road, or on the ice as well as the water, going straight forward at any pace from one to thirty miles an hour, or turning a corner with perfect ease and manageableness, throwing water like a deluge on the roofs of houses and barns to extinguish fires, or carrying a body of flying artillery, or a regiment of what used to be cavalry, into action at twice the speed and with twenty times the precision and effect of horses. In fact, the iron horse will soon become an antiquated term, and the steam elephant become all the rage. Such are some of the problems which are now being wrought out as the result or our patent laws.—*Philadelphia Ledger.*

THE largest furniture manufactory in Cincinnati employs over five hundred hands, and turns out over half a million dollars' worth of goods every year. The flooring of its building and sales-rooms together occupy an area of over five acres, and the proprietors are erecting a new building 7 stories high and 150 by 80 feet base.