

Scientific American.

NEW YORK, MARCH 17, 1855.

India Rubber Forever.

In the United States Circuit Court, Providence, R. I., a very important case was decided on the 7th inst. It was that of the old fight between Horace H. Day, now the owner of the extended Chaffee patent, and some of the manufacturers of india rubber goods who had licenses and worked under the patent, before it was extended. In this case H. H. Day was the plaintiff, the defendant was Isaac Hartshorn. This was the second trial, or rather a continued trial between the parties. The case was first brought before the Circuit Court in this city (New York) last summer, and abruptly terminated by the sudden death of one of the jury. The scene was then changed to Providence, R. I., where Chaffee resides, and the trial commenced on the 23rd of January last. As in the trial in this city, one of the jury in Providence was also taken sick, but both parties agreed to proceed with eleven jurors. The affair has been a long one, occupying no less than forty-two days. This shows what great and vital interests were concerned, and what capital was at stake on the issue.

The action was one for damages, for infringement of the Chaffee patent, by defendants. The main questions raised by the defence were, whether the extended Chaffee patent, and the title of Day to it, were valid; and, even if this were so, the defendants had a right to manufacture under a license from an agent of Chaffee. These are the real points, we have been informed; and the accounts we have received of the result is, that the verdict was general on all these questions, and the damages awarded amounted to \$4000.

It was thought by some in this city interested on the side of the defendants, that the jury would not be able to agree; the decision will no doubt greatly surprise them.

Throughout this great india rubber battle, H. H. Day has fought under the motto "don't give up the ship," and he has at last succeeded, after many ups and downs, in obtaining what Goodyear and Judson once obtained over him—a victory.

The extension of Chaffee's patent by Mr. Ewbank, was keenly opposed by Mr. Day, who then thought the extension invalid, but he afterwards purchased it, and now has received a verdict in its favor. The validity of a patent, however, is not final with a jury when it relates to a question of law; that is something which can only be finally decided by the United States Supreme Court. This case exhibits a curious phase of fortune in the inverted position of the parties, as they stood when the eloquence of Webster and Choate attracted crowds to Trenton, N. J., in this very month—March—1852. But, knowing, as we do, the tough character of india rubber, we are not disposed to believe the question settled between the parties. We are much mistaken if it cannot and will not stand to be drawn out "a little longer." It is too excellent a material for the lawyers to pull at, to be "given up so."

Congress has Adjourned.

This announcement will thrill with joy the entire population of this country who are in any way concerned in the welfare of the Republic. That miserable abortion, the "New Patent Bill," has been strangled in its birth, not one of its advocates could blow life into its nostrils. The monstrosity is happily defunct, and must in our opinion "sleep the sleep that knows no waking." It never had virtue enough to stand up for a single blow from any Senator or Representative at all acquainted with the wants of inventors or of the public—to whose interests genius is always devoted. There is scarcely one subject of legislation upon which more care and intellect has been expended, outside of Congress, than upon the patent system. Wise lawyers and practical attorneys have gone over the whole field with much faithfulness, and have besought Congress to heed their rea-

sons, and adopt their suggestions, but all to no purpose. Legislators have been bent on destroying the whole system by "substitutes" which in effect annihilated every reasonable hope of the inventor. Legislation upon this subject reminds us of a jail-building story which we once heard:—Somewhere in England it was proposed to build a new jail upon the ground occupied by the old one; this proposition met with favor and passed. It was then voted that the new jail should be constructed out of the materials of the old one, so far as they would go; and lastly, it was voted that the old jail should be permitted to stand until the new one was erected.

This fairly illustrates the whole course of patent law legislation in this country since 1836. It has commenced with flowery promises, and ended in mud. Let us rejoice that good sometimes comes from circumstances where we least expect it.

It is "glory enough for one day" that common sense, in this instance, has not been ravished by the Solons of the American Congress.

Agriculture for 1855.

We believe there never were better prospects for our farmers to use every effort in raising a large crop than there are at present. This war in Europe will prevent the cultivation of the soil in a number of extensive and fertile districts which, heretofore have raised a large amount of surplus products. This will open a gap for our farmers to fill up.—Corn is becoming more an article of food in Europe every year. Three times the quantity was exported in 1854 that there was in the preceding year. As it is the most important grain crop in our country, we advise a still more extended cultivation of it. Potatoes seem to have become one of the most fallacious crops. Farmers should not trust to them, but sow and plant other crops, and depend on them as if not a potato were to be raised. For the past ten years, most of the potatoes raised have rotted during winter; they seem to have lost the quality of preservation which they once possessed. In a few years more, perhaps this disease will wear out. Farmers should raise more oats and barley than they have hitherto done. The former crop in the Northern States is a certain one. Beans should also be more extensively cultivated, so that we may have abundant crops of many kinds. Rice is a standing crop; its cultivation seems to be more carefully attended to, and better understood by planters than the cultivation of either wheat or corn.

A Propeller to go dead against the Wind.

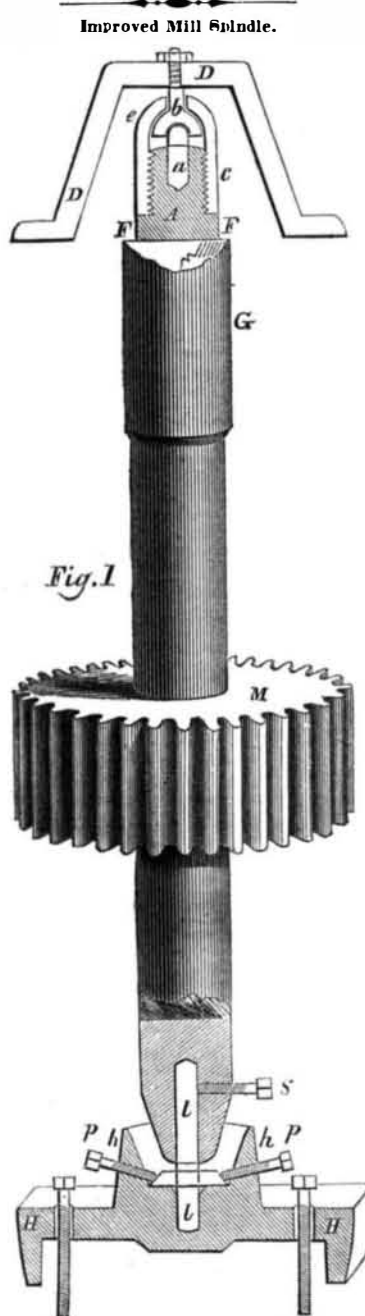
Our readers will remember, that on page 156 we published the illustrated description of James Curtis' windmill, and at the end of it, said, "Mr. Curtis intends to try this wheel on a propeller, so as to see what wind can do with his sails in moving a vessel directly against itself (the wind)." On page 187, we published the letter of Mr. Osborn, of Albany, N. Y., respecting the impossibility of the windmill doing this, and said, that "the windmill could not propel a vessel directly against the power that drives it."

We have received a letter from Mr. Curtis in which he disclaims having ever made such a statement to us. He says, the language used by him was, "he was going to try it on a vessel to work a propeller, and he could see no reason why it will not propel a vessel against nearly a head wind without tacking."

The way Mr. Curtis places the word *nearly* in the sentence, led us to understand him differently. The wind is not a head wind, but *nearly* a head wind, which some schooners we know work against now without tacking. He says, "I do not wish it to be understood that I am a man so utterly ignorant of the laws of mechanics as to think it possible to catch the steam as it issues from a locomotive and place it back in the boiler, and make it do its work over again, without a loss of power; or that a man can get into a basket and carry himself about." We assure Mr. Curtis that some persons think he

can, but we publish his correction at his request.

We have two letters before us, one from Daniel Lake, of Smith's Landing, Atlantic Co., N. J., and the other from S. Harper, of Cooperstown, N. Y., who assert that a windmill can propel a vessel against the wind.—We also have had letters from other correspondents beside these, who maintained the same views, so if Mr. Curtis should, on further examination, be led to change his opinions, he will have not a few to take sides with him.



The annexed figure is a perspective view of an improvement in mill spindles for hanging small stones, for which a patent was granted to Wm. H. Naracon, of Auburn, N. Y., June, 1852. In order to show clearly the connecting sockets, the upper and lower ends of the spindle are represented as if divided, and the interior of the spindle exposed.

G is the spindle, and D is the bail, A is the end of the spindle, with a thread cut around the outside down to the shoulder. a is the steel point in the end of the spindle on which the upper stone hangs. b is a steel socket with the bottom turned out, dishing to fit on the steel point, a, and the stem of the socket extends up through the bail to a shoulder on the stem, and is there fastened by a nut on the top. c is a cap, or an inverted cup, with a hole on the top, through which the stem of the socket passes. The cap has a thread cut inside to match the thread on the spindle, and is screwed down to the shoulder bell, e, of the socket, b, which confines it to the point, a. This holds the stone to the spindle point effectually, and in order that the stone shall balance freely on the point, a, the hole in the cap, c, is made larger than the stem of the socket, b, thus the cap is no detriment to the motion of the stone, while it holds it down to the work with ease under the greatest speed or pressure required. At the lower end of the spindle, H represents a common bridge pot, with the oil box, k, made round. l is the steel point in the end of the

spindle, and is fastened there by the set screw, S. There is a steel collar around the steel point, l, fitted and fastened in the bottom of the oil box by three set screws, P P P. Through the side of the oil box, down against the bevel edge of the steel collar, a shoulder turned on the steel point—just below the collar—prevents the point from lifting up through it. The step is fastened to the bridge tree with two wood screws or bolts. Thus the bridge tree is connected with the spindle, which is used as heft whenever it is required, and millers are not obliged to use a stone backed up high to obtain heft, nor would it run a four feet stone with the grinding surface reduced to three feet in order to obtain heft in the runner, for if the stone is reduced in size, so much the speed should be increased, in order that the small stone shall pass over the same amount in a given time. "Hence it is obvious," says the owner of the patent right, "that we save power by using small stone. First, because a part of the heft we use is stationary, and does not take power. Secondly, the stone is smaller, and grinds on a shorter lever. The third reason is, the furrows are of less draught, consequently grind easier and more even. Thus it will be seen that this is merely the old common spindle with a connecting locket attaching it to the bail, which renders it equally effective for raising or holding down the stone, and the socket is not subject to friction or wear as it revolves with the spindle and stone, making, when complete, the simplest method in use for driving small stones, and effecting a saving of power and expense."

Further information may be obtained by addressing Wm. Hendricks, of Wolcott, N. Y., who has given us some statistics respecting its operation and use, since the patent was obtained. It has been applied to twenty mills, and gives the best satisfaction. The first stone to which it was applied was a 30 inch, with very light grooves. It ground 2800 lbs. of corn meal for bolting in two hours, with ease, although it had only been recommended to grind 7 bushels per hour—not half the quantity it did grind."

The Reaper.

We are indebted to the Hon. John Wentworth for a printed pamphlet containing the argument of W. H. Seward, in the Circuit Court of the United States, Oct. 24th, 1854, on the trial of the case McCormick vs. Seymour & Morgan. Mr. Seward appeared for the plaintiff, and his argument is able and well prepared. The result of the trial was a verdict for McCormick for \$7,750.

It occurs to us, that it is a perversion of the franking privilege on the part of M. C.'s. to circulate broadcast over the country, matter which is so entirely foreign to the business of Congress. Many worthy citizens of this great republic are this day suffering injury for the want of such easy facilities for circulating their advertisements and we insist that Congress shall not assume for capitalists what it denies by law to many others who deserve and need its assistance. Mr. McCormick is abundantly able to do his own advertising, as much so as Wright, Green, Danford, Manny, Rugg, and other residents of Mr. Wentworth's State who are engaged in a laudable desire to sell reapers and mowers to the public.

New Motor.

The *Eastern Mail* (Waterville, Me.) gives a brief description of a new motor in experimental operation, in that place, and which has been designed and constructed by F. B. Blanchard. The motive agent is steam gas and heated air combined, instead of simple steam alone. The steam boiler is 8 by 3 feet; the bore of the engine cylinder is 12 inches, the stroke 24. It has two air pumps of 10 inch bore and 12 inch stroke. The *Mail* states that Mr. Blanchard expects to obtain as much power by his combination engine with one fourth the fuel he would use in employing pure steam. The results of two experiments are given, but they afford no evidence of superiority. Mr. Blanchard will yet discover that his engine will have but a limited lifetime, and that it will prove inferior (taking all things into consideration) to an ordinary steam engine.