

The "Patent" Lobby in the Field.—The Different Interests at Work, &c.

[Washington correspondence of the New York Herald.]

The patent lobby is gradually coming in the field this session, though, so far, the india rubber interest has kept rather out of the way. Sam Colt, the pistol man, has rented a house here, and made application for a revival of his expired patent. His prospects in that connection are not brilliant; for whilst many members do not object to voting for the extension of an existing patent where a plausible cause can be shown, there are several of them who regard the revival of an expired patent as a different matter. They consider that when a patent has expired, the right to it becomes vested in the public, and that Congress has no constitutional right to deprive the public of this acquired right. But in Colt's case it is hard to understand what solid pretence he can set up for a revival of his monopoly. As he was a poor man when he commenced, is now wealthy, and has made all his money out of his patent, he cannot seriously pretend that he has not had that reasonable reward for his invention which is all the principle which the patent law contemplates. The shorter the time a patent monopoly exists, consistent with a due reward for the inventor, the better for the public and the progress of inventions. To extend them for an unreasonable period, is to stop, during that time, all improvements in the particular article, except what the original inventor chooses to adopt. Col. Colt has made good contracts with the English, French, Russian and American governments, and he is scarcely an object for the eleemosynary regard of Congress.

McCormick, the reaper patentee, is also here, trying to get, not an extension of his present patent, but a revival of the first patent he took out, for a crude machine which he never made work. He improved on this crude principle, and has a patent for his improvement. But what he seeks is a revival of the patent on his first crudity, so as to prevent any other person from making improvements on it, as it might interfere with his present monopoly. He has plenty of money to prosecute his matter, but so far he has had but meager success, either at the Patent Office or in Congress. He has been trying to get a bill passed for several years, and is here again to resume his labors.

The india rubber interest consists of the Chaffee patent, the Hayward patent, Horace F. Day's claims, and the Goodyear patent. The Chaffee and the Hayward patents have expired, and their renewal is sought. They are both for preliminary processes in the manufacture of the vulcanized rubber, and either of them, if revived, would control the Goodyear patent. The Goodyear patent expires next June, and the Commissioner of Patents will then decide whether he will extend it for six years or not. This interest is one of the wealthiest in the country; and the profits, if either Hayward's patent or Goodyear's is extended, are computed as high as fifty million dollars.

There was a large lobby here last year in the india rubber interest, and I see some of the managers again on the ground.

Sorgho Sugar.

About three months ago, the possibility of obtaining crystallized sugar from the Chinese cane was publicly denied by a number of persons who had made experiments with the juice, some of whom were known as scientific men and practical sugar refiners. Such opinions naturally led astray those who had no means of making experiments for themselves. It is a curious fact, however, that at the very time when such opinions were being propagated, the most effective shot and shell were being prepared for their demolition. We had thought, from what we have already published on this subject, that but little if anything useful could be added to our stock of knowledge until experiments were made with the future crop of this year, but in this opinion we have found ourselves agreeably

mistaken. We had received some excellent samples of this sugar from various parties, but no certain data as to the quantity and quality of the sugar to be obtained from the cane per acre; but we have now received very satisfactory information on this point. Mr. Joseph Lovering, of Oakhill, Philadelphia county, Pa., a very scientific and practical sugar refiner, has sent us a box containing as beautiful samples of loaf, white, granulated and brown Sorgho sugars as any cane sugars whatever. He had planted half an acre of the seed on his farm, and with the stalks of this he made correct and scientific experiments. Before proceeding to refine the juice, he wisely examined it with the polariscope to see if it gave the usual indications of possessing crystallizable sugar. This examination afforded the proof that it contained 5.57 per cent of sugar; and from this data he went on, and made those experiments with the juice which resulted in the samples of beautiful sugar he has sent us. Mr. L. has also given a detailed account of his efforts in a well written pamphlet, and from these he has arrived at the conclusions that an acre of this cane, in a good season, will yield about 1,466 pounds of sugar and 74 gallons of molasses—a result corresponding to that obtained on the Louisiana plantations with the real sugar cane. The experiments of Mr. Lovering are of a reliable character, because they were performed with care, and he is not a mere theorist, but one well acquainted with sugar-refining in all its branches.

We apprehend, from the facts now spread out before the community regarding this plant, that it will be extensively cultivated during the next season. A convention of farmers was held on the 11th inst., at Springfield, Ill., to consult on measures as to its future cultivation. All present expressed themselves gratified with their experience with the cane, and resolved to give it more attention next season. One farmer present stated that its seed made flour equal to buckwheat in every respect, and the yield was twenty-five bushels to the acre. It was also asserted that we had no plant equal to it, in all things, because it could feed us with bread made from its flour, as well as provide us with our sirups and sugars.

In connection with this part of the subject, we would note a singular statement made by Dr. C. T. Jackson, at the meeting of the United States Agricultural Society, held at Washington on the 15th inst, viz., that about two years ago he had obtained a large percentage of crystallizable sugar from the juice of some Sorgho sugarcane grown at the United States Arsenal, Massachusetts. It is surprising that we never heard of this before, and that Dr. Hayes, of Boston, Mass., was unacquainted with it when he published his views as to the non-crystallizable character of the Sorgho juice.

In our next number we will have some remarks to make on another sugar-producing plant, the African *Imphee*, regarding which we have a letter from Governor Hammond, of South Carolina.

Water in the Sea.

On page 149 of the present volume of the SCIENTIFIC AMERICAN, there is a paragraph having the above caption, in which it is stated that "the water of our earth would form a globe of about sixty thousand miles in diameter." There is a mistake in the number, which should read, "about four hundred miles." If we allow the water on the globe to cover two-thirds of its surface, and suppose a general depth of about two hundred fathoms, it would give as the solid contents 33,513,246 cubic miles, from which data we calculate that this quantity of water can be contained in a sphere of the above diameter. There are many curious facts connected with the solid matter found in solution in the water of oceans and seas; for example, gold and silver are generally present in sea water, although in the most minute quantities, and in fact, traces of nearly every other metal have been

found. This is accounted for by the supposition that many mineral veins must be exposed to the action of the water on the rocks which form its bed; and as there is an abundance of that universal decomposer, chlorine, it attacks and dissolves small quantities. We believe that Dr. Percy, the metallurgist, of England, was the first who demonstrated the presence of gold in sea-water.

In regard to errors which from time to time creep, almost unawares, into the columns of every journal, we would state that they occasion us much annoyance, and we are glad to correct them. They seem almost unavoidable at times when the printer is clamorous for short items to "fill up."

Recent Patented Improvements.

The following inventions have been patented this week, as will be found by referring to our List of Claims on another page:—

MILLSTONE EYE.—This invention consists in placing a cylinder within the eye of the upper stone or runner, and giving the cylinder a vibratory movement, so that the eye will be prevented from becoming clogged. Winner Smith, of Princeton, Iowa, is the inventor.

FEEDING DEVICE FOR SAWMILLS.—Hiram Wells, of Florence, Mass., has invented an improved combination of mechanism to feed the stuff to the saws of sawing machines, and to gig back the frame when the stuff is sawn through.

CUT-OFF FOR STEAM ENGINES.—Addison Crosby, of Fredonia, N. Y., has invented a new cut-off for steam engines. It is an excellent invention, although it is impossible to explain it without accompanying drawings.

SAWING MACHINE.—A curved or segment saw is placed in a swinging frame, and so arranged that any of the ordinary horse-powers may be employed, and logs can be sawn with much greater facility and more rapidity than by the ordinary up-and-down or circular saw. It is the invention of John Mays, Yazoo City, Miss.

SAWING MACHINE.—This invention consists in attaching the upper and lower ends of the saw to springs, and giving the saw a reciprocating motion by means of a cam, so that the saw is properly strained without a sash, and all "back lash" is prevented. There is also an attachment for blowing away the sawdust off the stuff in front of the saw, so that the tracing or line to be followed can always be seen. It is the invention of U. B. Vidal, of Philadelphia, Pa.

DOUBLE-SEAMING MACHINE FOR TINNED WARE.—The great quantity of tinned ware in every-day use, and consequent regular demand for it, has stimulated inventors to originate or improve the machinery employed in its manufacture. This machine, the invention of L. E. Porter, of Lake Mills, Wis., has a peculiar arrangement of frames which contain the rollers that perform the work—that is, the closing of the seams and joints; by this arrangement a double seam or locked joint is closed or formed, thus making a more perfect joint than by the ordinary machines.

MACHINE FOR FORMING THE BRIMS OF HATS.—This invention consists in the employment of two pairs of conical rollers—the upper rollers of both pairs being placed in a vibrating frame, the lower rollers of the pairs are allowed a certain degree of vertical play or motion. The two pairs have different speeds imparted to them, and are arranged with an adjustable bed and rotating plate, on which the hat that is to have a brim rolled out is placed. It is the invention of W. A. Fenn, of Brookfield, Conn.

ROPE MACHINES.—William Coutie, of Troy, N. Y., has invented some improvements in that class of rope-making machines known as the "sun and planet" machine, the object of the new arrangement being to prevent the great development of centrifugal force which is at a high speed so injurious to the common "sun and planet" machine, and thereby to enable the machine to be driven with safety

at a much greater speed. Another object is to keep the machine always in balance, and to prevent the injurious action which, in the common machine, results from the unequal quantities of strand on the flyers, causing the machine to get out of balance.

COVERING NAIL HEADS.—A machine has been invented by J. P. Blake, of Waterbury, Conn., for covering nail heads with thin sheet brass or other metal. It first presses the piece of metal forming the cover on to the head of the nail by means of a die, and afterwards bends the surplus metal under, thus forming a perfect and fast cover. The machine performs all the operations of feeding, &c., automatically.

MAGNETIC CAR BRAKE.—Various have been the methods proposed to enable electro-magnetism to be used not only as a motive power, but as a method of arresting motion. For the latter purpose the car brake invented by S. D. Carpenter, of Madison, Wis., is one of the most simple contrivances. He attaches two electro-magnets (one each side) to the shoe bars, and has them connected with a convenient battery; the moment the current passes around them they grip the wheel tight, and tend to stop the car.

SHINGLE PLANER.—This machine employs two bevel carriages. These carriages are moved back and forth in opposite directions. The main improvement is in effecting the reciprocating of the two carriages by the simple means of two pinions and two self-adjusting racks, each of which has only one line of teeth, which are on its underside, but detached from the same. A secondary improvement is in having the head-blocks adjustable and self-confining, by the simple means of a set-screw and spring yoke with lip or catch. It is the invention of George Darby and J. E. Young, of Augusta, Me., and is very simple, and not liable to get out of order.

RAILWAY INDICATOR.—Lewis Troost, of Mobile, Ala., has invented and patented (in England, June 15, 1857, and France, June 18, 1857) an apparatus for registering every second or other interval of time between the departure of a railway train and its arrival at its destination, by a series of marks produced in one or more lines by a pen, style or other marking instrument on a strip or sheet of paper or any other suitable surface, and the registration upon the same surface of every one or more revolutions of the wheels of the train, or of any wheel attached to one of the cars running on the tracks, by one or more series of marks produced in one or more lines parallel with or conveniently contiguous to the line or lines of registration of time by means of one or more pens, styles or other marking instrument whose operations are controlled by the said wheel. By the comparison of these registrations of time and distance—the registration of the revolutions of the wheel being an indication of the distance—the exact rate of the train at any time, can be determined; and the register of time proceeding when the train is stationary indicates the length of the stoppage, the localities of which are also indicated by a comparison with the registration of distance. The invention also consists in causing marks of a different character to those produced by the revolutions of the wheel in running forward, to be given when the wheel is running backward; such marks being continued in the same line or lines or nearly so as those registering the forward revolution of the wheel, so as to enable them to be compared with the registration of time to show the time occupied in backing; the different characters of the marks produced by the forward and backward revolutions of the wheel serving also to indicate the localities of the backing places, and by deducting the distances backed from the whole number of forward ones, the exact distance made by the train can be calculated. This is an invention of great value to railway companies, as it enables the superintendent to keep a perfect record of the performance of each train, and compare with accuracy the various results.