NOTES OF PATENT OFFICE DECISIONS.

In Daniels *vs.* Chesterman, the Commissioner of Patents decides that a disclaimer contained in an original patent may be omitted upon reissue, notwithstanding it was entered to avoid a threatened interference, it being clearly established that the admission which it makes is an inadvertence.

In the appeal from the decision of the Principal Examiner, in the matter of the application of Elbers for the reissue of letters patent for "process of treating mineral wool," the position of the Examiner is sustained. The essential subject matter of the invention, as set forth in the original patent, was in the treatment of mineral wool with bituminous, resinous, or gumming substances, in such manner that the fibers of the wool would be coated with those substances, or with the carbonized residue derivable therefrom, rendering the wool waterproof, and preventing the decomposing and disintegrating action of atmospheric gases, particularly carbonic acid gas. This idea of coating the fiber ran through the whole specification, entirely irrespective of the fact as to whether the fiber was to be used in a loose or compact state, or whether it was to be sized or remain unsized.

The Principal Examiner objected to so much of the case as referred to the sizing of the sheets, holding it to be an entirely independent process. Upon this point the Acting Commissioner disagrees with the Examiner, holding that the sizing of the fiber stands on the same level as the sizing of paper. Thus it is apparent that if an inventor had devised a new process of paper making, the Patent Office would not require him to confine his specification to the method of making unsized paper, since it is evident that for some purposes a sized paper would be desirable, and that it could be prepared without the slightest departure from the underlying principles of the invention, and by the ordinary exercise of the well known principles of the art. The same reasoning should apply to the sizing of the fiber.

The Examiner further objected to the description of the amended specification as insufficient, because it set forth the general theory of a process invention, but failed to disclose some one method of carrying it into effect. He further objected that the claim was not tangible or well defined, because from the claim it was uncertain whether the mineral wool or the bituminous substances were to be "in a vaporized condition." The position of the Examiner upon both of these last points is sustained and approved by the Acting Commissioner, who holds that a specification abounding in generalities, with not a single hint as to the preferable way of carrying the invention into effect, but simply stating the purposes to be attained and the general manner of their accomplishment, will not suffice; but that the applicant must furnish a description that will tell *how* the invention is practiced, as distinguished from its general theory, and must accompany it with a clear and tangible form of claim.

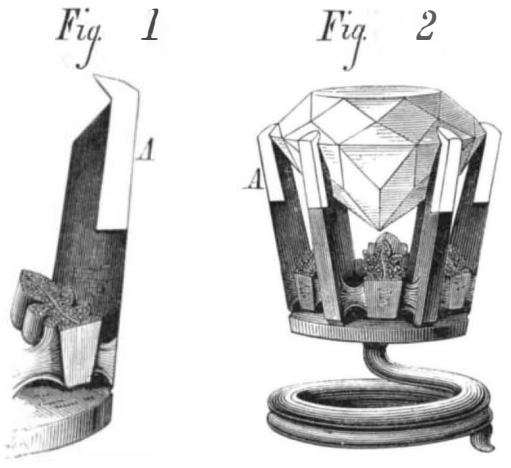
In an interference case between the application of J. J. Greenough for a reissue of his patent for a circular loom, dated November 21, 1865, the patent of Thomas Nelson, December 16, 1856, and the patent of Walton & Naudain, November 1, 1864, upon an appeal by Nelson from the decision of the board who had awarded priority to Greenough, it appeared that eleven years after the grant of Greenough's patent he filed an application for a reissue, embracing for the first time the broad claim, "in a loom for weaving circular fabrics, the combination with the shedding mechanism of two or more shuttles in a circular race for weaving at the same time, and mechanism for driving the said shuttles along the race." This claim was not made until twenty years after the combination referred to had been shown in the patent granted to Nelson. Thus far the interference has been held to be substantially between Greenough and Nelson, as Walton & Naudain did not take any testimony. The patent of Walton & Naudain, however, was granted in 1864, their application filed in October, 1862, and Nelson's invention was put into practical use as far back as 1857. The testimony in behalf of Greenough shows that he conceived the application as early as 1838, that he described it to others in 1840 or 1841, and continued to talk about it until 1863, when he completed full drawings and a model preparatory to filing his application. He did not then make the broad claim, and there is no positive proof that his machine, as described and claimed, has ever been put into practical use, or ever went beyond the experimental condition. The Commissioner therefore decided that, at the time of filing his application in 1865, Greenough had notice of patents previously granted to others embracing the point now in dispute and made no claim; that he has not overcome the *prima facie* case made in behalf of Walton & Naudain by showing practical operation of the invention before the grant of their patent; that his long delay in not making application for this claim, and failure to put the same into practical operative shape till after other patents containing the same devices had been granted and expired, are not satisfactorily accounted for; and in view of these facts, has not shown that he is entitled to protection for the broad matter now in dispute. The decision of the board in favor of Greenough was therefore reversed.

Egypt and the Nile.

Egypt depends on the Nile for its water and virgin soil. If the country does not get its annual gift from the river the crops fail. Modern enterprise has made itself felt in that sluggish land, and by canals and steam pumps is doing much to improve it.

PLATINUM-TIPPED SETTINGS FOR DIAMONDS.

Any one who has ever noticed the difference between the modern style of setting diamonds and that in vogue fifty years ago, cannot fail to have remarked that the present mode of setting rather tends to obscure the gem, and that although the latter is set high and is not closely encompassed as used to be the case, still the old manner of holding the stone apparently exhibits it in greater brilliancy. The reason is that formerly silver alone was used for settings, while now gold is employed, and that the whiter metal harmonizes with or rather is not noticed beside the luster of the stone, while the yellow metal, especially if it becomes dull by wear, is palpably apparent wherever it comes in immediate contact with or partially incloses the jewel. Silver, however, blackens and is not fit for fine jewelry, and hence has fallen greatly out of use, and as a substitute for it platinum has been used. This metal, however, has a coarse appearance when employed for the delicate claws which grasp a *solitaire*, but it is strong and durable, and, besides, it possesses the necessary white color.



PLATINUM-TIPPED DIAMOND SETTING.

An ingenious device, allowing both platinum and gold to be used in diamond settings, has recently been introduced by Messrs. Ripley, Howland & Co., of 35 Maiden Lane, this city, and the manner in which the metals are ingeniously combined will be readily understood from our engravings, which are all enlarged views. Fig. 1 represents one of the claws which hold the stone. These are of gold, except at the outside upper portion, where a piece of platinum, A, is inserted. The diamond is placed in the setting as shown in Fig. 2, and the portions bent over to grasp it are the platinum ends, so that only the white points of that metal come in contact with the stone. These, as indicated, are scarcely distinguishable from the gem, are equally strong, and are claimed to be more durable than gold, while they do not, in any wise, interfere with the full brilliancy of the gem.

For further information address the manufacturers as above, or at 383 Washington street, Boston, Mass.

THE STAFFORD SCROLL SAW.

In using scroll saws it is necessary to pass the end of the saw through the work to fasten it, and then detach it and

THE STAFFORD SCROLL SAW.

take it out as each opening in the pattern is finished, however small the aperture may be. In the present machine this is all obviated, through the absence of any fastening at the lower end of the saw blade. The latter works in slotted pieces both above and below the table, which is made just deep enough to embrace the back, leaving only the short section of the blade which makes the cut unsupported. This section is about ⅛ inch longer than the thickness of the wood to be cut, and may be lengthened or shortened as desired. The blade thus held cannot bend sideways or backward, as the wood itself holds the otherwise unsupported part in place. It is simply necessary therefore to raise the saw and insert the lower end in the aperture in the wood to begin work at once.

The main belt, as it is carried up from the drive wheel, is passed round a cone pulley, one groove of which carries another belt, which passes forward to the driving pulley on the saw frame. The shaft on which this pulley is fastened passes through an upright sliding bar, and at the other end is a crank with pitman, which connects with the saw clamp. The latter is reciprocated on the lower end of the sliding bar. The saw frame (which has the foot attached) is first raised from the table, so as to leave about ⅛ inch space between the foot and the wood to be sawed. It can then be fastened in that position by tightening a thumb nut. To insert a saw, the sliding bar is raised and the driving pulley is turned until the crank and pitman are at the highest point. After cutting off all but ½ inch of the blank at the lower end of the saw, the blade is passed down from the top until the lower end, going through the foot and even with the lower side, enters the guide slot. The saw is then ready for operation, and need not be unfastened again until it is necessary to change the blade. After drilling the required number of holes in the pattern, the wood is placed on the table with one of the holes directly under the saw; the small driving pulley is then turned with the thumb and finger until the point of the saw is passed down through the hole in the wood and into the slot in the table. The sliding bar is then lowered, which carries the saw still further down and sufficient to prevent the point coming out when the machine is in motion. When this opening is sawed out the sliding bar is raised and the crank turned to the highest point, and the saw may be adjusted in the next opening. The tilting table is fastened at any desired angle by means of the small wheel and screw underneath. There is also a cup which catches the sawdust and prevents it falling on the clothing of the operator.

In connection with the crank and pitman is an air pump or blower, which removes the dust from the work. The drill is stationary while the saw is in motion, but it may be started by shifting the main belt from the pulley at the back to a similar one, which starts the drill and stops the saw.

The No. 2 machine, as shown in our illustration, will swing 18 inches between saw and frame, has a 12 inch polished iron tilting table, drilling attachment, with self centering steel drill clutch, blower, dust cup, double foot treadle, one drill, one dozen saws, pair of cutting nippers, and wrench. It is mounted on an iron stand with black walnut top.

It is intended to make machines of larger sizes to be run by power, in which case, owing to the larger sized saws used, much thicker wood can be sawed. For particulars as to licenses, etc., address the patentee, N. Stafford, 66 Fulton Street, New York city.

New Agricultural Inventions.

Mr. John Butterfield, of Woodlawn, Mo., has invented an improved Self Dropper for Seed Planters. The dropping slide, which works reciprocatingly in the bottom of the seed hopper, has at each end two holes, in which are pivoted small spouts of such a size as to hold just the amount of seed required for each hill. These spouts are hinged at their outer ends, so as to drop alternately into the holes in the bottom board of the hopper and discharge the seed into conductor spouts which convey it to the ground. As the slide moves, the spouts are alternately filled from the hopper, and upset and emptied of their contents. The slide is operated by suitable lever mechanism from the drive wheel, and is moved twice at each revolution of the latter.

Mr. J. H. Riggan, of Forestville, N. C., has made certain improvements in Plows, which consist in the novel construction of a sweep, to adapt it to take the place of an ordinary point, and in the combination of a guard plate with the standard and the sweep, to prevent the seat for the mould board from being worn. The object is to furnish a strong plow, and one in which the various parts may be readily changed to adapt it to the various kinds of plowing required to be done.

An improved Plow Clevis has been invented by Mr. D. A. Kennedy, of Eau Claire, Wis. It consists in a combination, with a sleeve, of a vertical and a horizontal clevis, locked by an eccentric pin. By moving the pin from one to another of the slots in the horizontal clevis the plow may be adjusted to take or leave land, as may be required; and by turning the eccentric pin the vertical clevis may be raised or lowered, and secured in place, to cause the plow to work deeper or shallower, as desired.

A new Potato Digger of simple construction has been patented by Mr. C. O. Seamans, of Chesterton, Ind. It resembles an ordinary plow in appearance, the beam, standard, landside, and share being similar to corresponding parts of a plow, except that the share is made longer and makes a cut about two feet wide. An arched sifting frame of parallel rods follows the share, which is drawn through the ground at such a depth as to pass beneath the potatoes. The latter are caught by the sifter, separated from the earth, and left behind on the surface ready to be gathered.

An improved Gate, patented by Mr. J. D. Hagaman, of Weston, Mich., is especially adapted to farm use, as its height is adjustable, so that the space between the lower part and the ground may be increased or diminished to allow passage of small stock or to clear obstructions of snow, ice, etc. This is accomplished by adding pivoted longitudinal bars and an adjusting lever.