

New Inventions.

Important Patent Cases.

Batten's Coal Breaker.—In the United States Circuit Court at Philadelphia, Judge Grier presiding, some very important cases were decided on the 21st ult. The parties were Batten agt. Taggart and others, for infringement of his patent on the machinery for breaking coal, which was illustrated on page 17, Vol. 6, SCIENTIFIC AMERICAN. The trial occupied several days, and the case was keenly contested. The Jury gave a verdict for the plaintiff on all the issues.

There were in all seven cases tried together—three actions at law, and four equity suits. The questions of fact were the same in all the cases; that is, an alleged infringement of Batten's Coal Breaker, re-issued patent of September, 1849. Upon the question of damages in the suits at law tried by the Jury, in which the plaintiff claimed two cents per tun as a license for the use of his patent, the Jury made the following assessment for the time claimed:—Against James Taggart, \$63'94; against Ratcliffe & Johnson, \$52'17; and against John G. Hughes, \$295'88.

Improved Turning Lathe.

Our engraving is taken from the operating lathe, invented by P. C. Cambridge, Jr., and exhibited at the great Fair of the American Institute, Crystal Palace, New York.

This invention is intended for the turning of all kinds of round ornamental work, such as bedstead, tepoi, null work, balusters, etc. It is chiefly remarkable for its simplicity, ease of adjusting the tools, and excellent finish of its work.

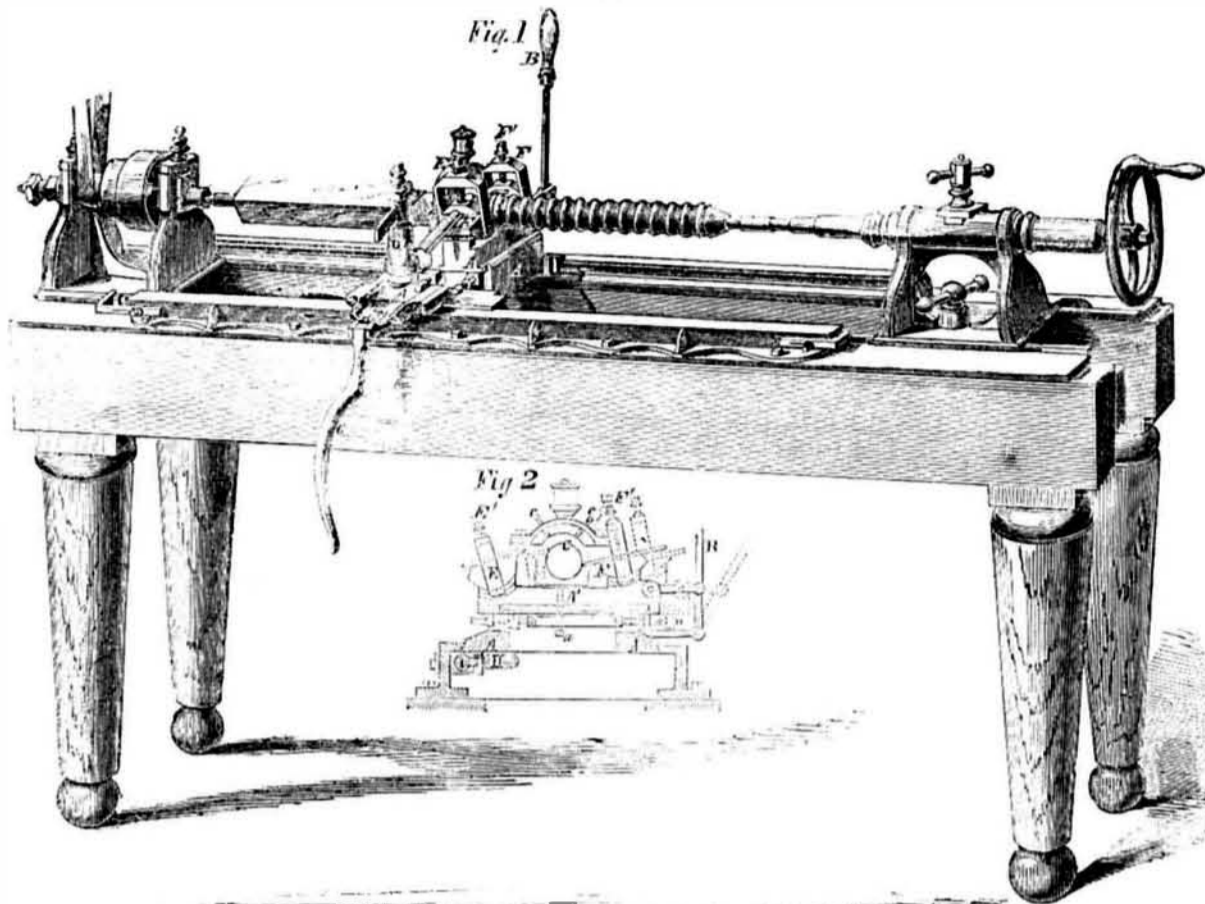
The stuff to be turned is centered, and caused to revolve in the usual manner. The cutting tools are all attached to a rest, A A', which is divided into two parts, the lower portion, A, moving lengthwise on the frame, in the usual manner. The upper portion, A', moves cross-wise upon A, or at right angles to the frame. The cutting tools are carried upon A', and they are moved in and out, and caused to act upon the wood by means of lever B, which connects with A'. C is a round adjustable mandrel, which supports the stuff at the point where the cutters act. The collar is adjusted by screws, a, c c. The roughing is done by tool D. The ornamental turning is done by tools E and F. The shape of these tools must correspond to the design which is to be produced in the wood. For different patterns different shaped tools are therefore necessary.

The tool holders of E F are of peculiar formation. Their lower portions are of convex shape, resting in concave beds somewhat like a ball and socket joint. This permits the setting of the tool at any desired position, with the utmost convenience, accuracy, and rapidity. The tool is secured after being set in a given position by screws E' F'.

The longitudinal movement of the rest and its tools is effected, by means of the lever G, which is hinged to rest A. The operator places the lever G against the side of his body, and pushes, at the proper moment, in the direction of the arrow, thus moving the rest A for a distance, corresponding to the width of the tools; the rest is then fastened, and lever B pushed, so as to move A', and bring the tools against the stuff. Rest A is now released and again advanced by means of G, as described. In this manner, step by step, the turning is accomplished. The alternate release and fastening of rest A, is done by the spring ratchet H, which meshes in a long rack, I. Said rack is eight sided, with teeth upon each side; in other words, there are eight racks combined in one piece, the teeth of each being arranged at different distances, in order to suit different kinds of work. When the operator wishes to move the rest A, he presses the spring ratchet, H, and releases it from the rack, I. In fig. 2, which is a sectional view, the situation of the spring ratchet and rack, and other parts, may be seen.

This lathe is very simple in all its parts, and therefore not expensive in construction or

NEW LATHE FOR ORNAMENTAL TURNING.

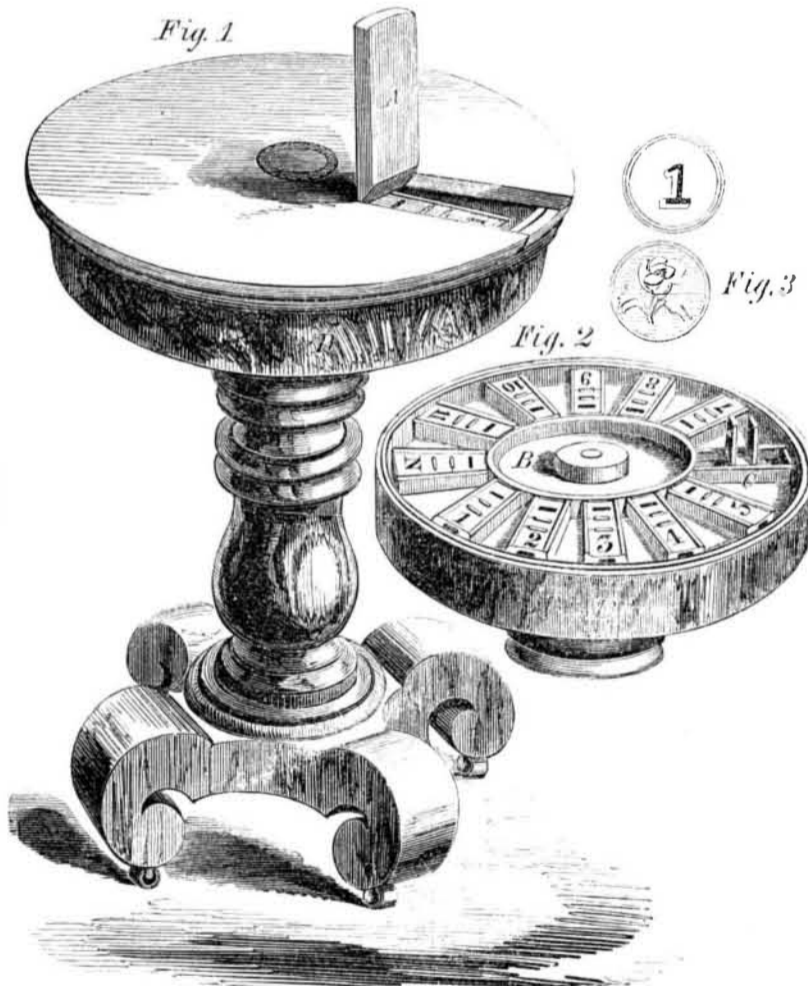


liable to get out order. It is very easily operated, works rapidly, and gives a smoothness of finish to its work that we have never

seen excelled by any lathe. From a careful examination of the invention we are satisfied that it is a valuable improvement. Price from

\$75 to \$150, according to size. For further information address the inventor at North Enfield, N. H. Patented July 15, 1856.

NOVEL AURACULAR TABLE.



Novel Auracular Table.

Our engraving illustrates a new game for the amusement young people at social gatherings, parties, &c. A stand table is provided, in whose top there is an aperture covered by a hinged lid, A. Beneath the top is a revolving wheel, B, whose upper surface is furnished with a number of small oblong boxes, C, each of which is partitioned into two compartments, with a separate hinged lid for each division. The inner lids have slots in them, through which checks (fig. 3) can be slipped without lifting the lid. Each box is designated by a different number.

The game is as follows:—Those who participate select one of the numbered boxes as

their own. Into the front or numbered end of each box, C, a few checks, like the specimens (fig. 3) are deposited. All the checks placed in one box are alike, but differ from those in the other boxes. The back compartment of the boxes are empty. By putting the hand under the table and touching the bottom part of wheel B it may be revolved. It is proper to state, here, that one of the principal objects and uses of the table and game is to enable a lady to signify to a gentleman her special preference for him, and *vice versa*, without speaking or permitting any other person to know that such signal has been given. In this respect the invention serves as a sort of silent telegraph.

Suppose a lady wishes to signify to a gentleman that he is the object of her preference. She revolves wheel B until the box bearing her number appears at the aperture in the table top. She then opens her box, extracts a check, and turns the wheel until the box of her favorite appears, and drops the check through the slot into the back compartment; she also opens the front compartment, and extracts one of his checks, which she keeps. None of the company are to see what boxes she has opened. When all have played in this manner the table top is removed and each compares the check found in his or her box with the one retained. If the lady finds in her box a check similar to the one which she extracted from the box of her favorite, she will know that he alone could have deposited the similar one, and therefore, that their preference is mutual. Should she find a different check, she will not know who was the depositor, and *vice versa*. The box marked N is a neutral box, into which those who prefer to make no selection, can play.

We are informed that this game is a source of much amusement in social circles where it has been introduced. It is, obviously, of considerable utility in a matrimonial point of view, as it enables the bashful swain to say "Barkis is willin'," without ever opening his lips. It also gives to the anxious young lady the rare privilege of promptly responding "Yes, sir-e-e" to his proposal, and of thus catching him on the spot.

Oracular wheels of this kind may be made of paper, or as articles of furniture, as shown, also in a great variety of forms. Patented May 20th, 1856. For further information address the inventor Wm. O. George, Richmond, Va.

SPLENDID PRIZES.—PAID IN CASH.

The Proprietors of the SCIENTIFIC AMERICAN will pay, in *Cash*, the following splendid Prizes for the largest Lists of Subscribers sent in between the present time and the first of January, 1857, to wit

For the largest List,	\$200
For the 2nd largest List,	175
For the 3rd largest List,	150
For the 4th largest List,	125
For the 5th largest List,	100
For the 6th largest List,	75
For the 7th largest List,	50
For the 8th largest List,	40
For the 9th largest List,	30
For the 10th largest List,	25
For the 11th largest List,	20
For the 12th largest List,	10

Names can be sent in at different times and from different Post Offices. The cash will be paid to the order of the successful competitor, immediately after the 1st of January, 1857.