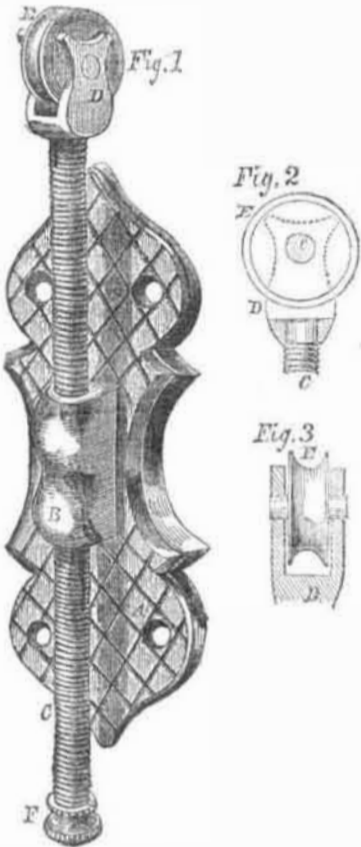


New Inventions.

Schleier's Shade Fixtures.

Who has not been vexed when they have tried to wind up the inside window shade and found the cord too slack, and the shade come down with a run, or perhaps the cord was too tight, and it would not move at all? Who has not also pinched their fingers or broke their thumb-nail in the attempt to fix and adjust the refractory catch? Nearly every one



has, more or less, felt the inconvenience of the awkward fasteners now in use, and we now engrave one that has none of these disadvantages, and is simple and elegant. It consists of an ornamented plate, A, which can be secured to the frame of the window by screws or nails; there is cast on this a projection, B, through which a worm is cut, making it answer the purpose of a fixed nut, through this there passes the screw, C, of a fine thread provided with a milled head, F, by which it can be turned so as to tighten or loosen the cord which is passed round the pulley, E. The screw, C, is connected to D, which forms the pulley's support by the plane head, c, lower at the top than bottom, and this fitting into a properly shaped hole in D, so that D can turn round, and the screw can turn and depress or elevate it without disturbing the position of the pulley, which rotates on an arbor, e. The two small diagrams show a side view of the pulley and rest, and an end view of the same.

It is a most useful little invention, and was invented by Charles Schleier, of Brooklyn, N. Y., and patented by him January 26, 1867. Mr. S. has assigned the invention to John H. Bonn, of 229 Broadway, this city, from whom all further particulars may be obtained.

Premium for a Steam Plow.

The following, from the *Prairie Farmer*, affords evidence that the farmers of Illinois are imbued with the true progressive spirit:—
“At the late meeting of the Executive Board of the Illinois State Agricultural Society, a resolution was passed offering five thousand dollars for the best steam engine suitable for plowing, or other farm work—its efficiency to be decided by the Board. It is a little singular that the construction of this desirable machine has so long baffled human ingenuity. We know that there are many and complicated obstacles to overcome; yet, where such immense interests are at stake, it seems as though mechanical genius ought to concentrate its energies and overcome them

all. In the northwest, steam plowing will be most extensively and profitably employed. One of its chief advantages will consist in the depth to which it will plow. If our rich prairies were plowed twenty inches deep, twenty-five per cent would be added to their productiveness. Animal strength, however skillfully directed, cannot profitably accomplish that result. A ditching steam plow might be invented, which would perform a vast amount of labor in a short space of time. It is hardly to be expected that the proposed machine will materially reduce the cost of plowing; but the quality of its work will compensate for any disappointment in this respect.”

Peat, Lime and Potatoes.

We have received a letter from Mr. Philip O'Reilly, of Providence, R. I., in which he states that lime is of no avail in preventing potato rot, as he has tried it, and has seen it tried by others in vain. After many experiments, he has found that a handful of dry peat in powder or in small pieces was the best preventive, and he thinks if it were generally applied, it would save ninety-nine in every hundred hills. This experiment can easily be tried. Those farmers who cannot get peat may use swamp muck, which is nearly as good. While we advise our readers to be up and doing, in trying experiments, we exhort them always to count the cost first. Various specifics have been recommended as preventives of the potato disease; but we must enjoin caution against relying positively on any one presented. A certain specific may be a remedy in one situation, or in one season, and not in another, just like medicine as applied to the genus *homo*.

Diagonal Bit-Holder.

The bit, one of the most useful of tools, is operated by means of a crank turned by hand, the pressure requisite to force it into the substance that is being cut being given by the person who uses it pressing with his chest against a broad piece on the end of the crank; to do this requires a great amount of leaning, or stooping forward, and it is a very

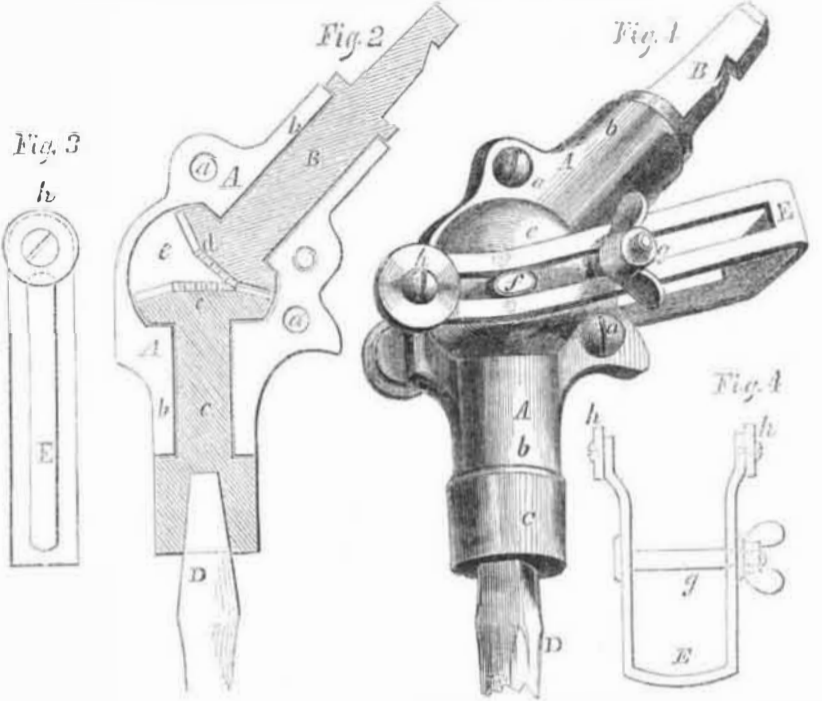
unhealthy operation, inducing many chest complaints.

The bit-holder represented in our engravings is one by which, with a very slight stoop, in fact scarcely any, the pressure can be given to the perpendicular bit, and the rotation is made easier. Fig. 1 is a perspective

view of the whole, Fig. 2 being a section of the same. Similar letters of reference indicate the same parts in each.

A is a hollow casting of the shape represented, and made in two parts, connected together by the screws, a. The plane parts of A, indicated by b, form journals for the brace-

HILL & ADAMS' DIAGONAL BIT-HOLDER.

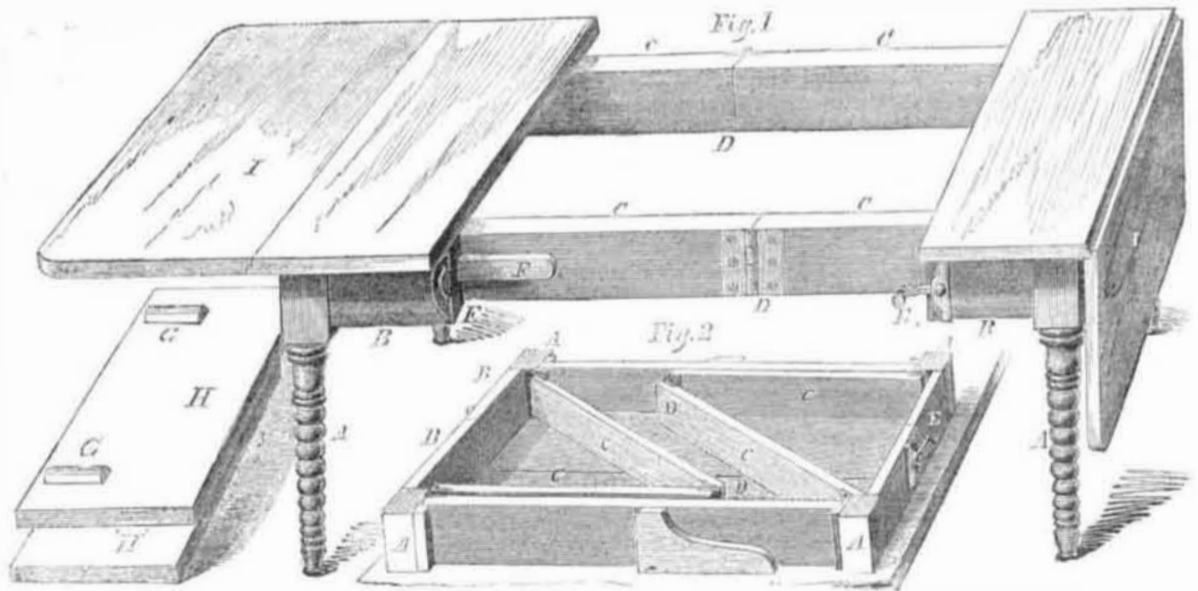


holder, B, and bit-holder, C, a bit, D, being with or without the rest. This rest is of the shape shown in Fig. 4, Fig. 3 being a side view of it. A screw and nut, g, passes through a hole in A, which holds the rest to the casting; and it has two small wheels or friction rollers, h, one at each end, which much facilitate its motion downwards as the bit descends in the stuff; when boring in corners or awkward places, it can be removed.

It is the invention of Benjamin B. Hill and Samuel W. Adams, of Chicopee, Mass., and was patented January 5, 1858. Further information may be obtained by addressing as above.

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CLARK'S PATENT EXTENSION TABLE.



This table, simple as it is, is yet a piece of ingenuity from the compactness and strength of its construction. In our illustrations, Fig. 1 is a representation of the table extended without the extra leaves being inserted in their proper place, and Fig. 2 is a view of the table folded up and turned upside-down to show the arrangement of the parts when it is closed. A are the legs on which are mounted sides, B, these sides are mortised into the legs to afford the strongest possible joint; when the table is closed, the pieces, F, attached to B, slide in corresponding grooves on the opposite halves of B, which render the table firm when closed, and the table is held together by the common catch, E, one on each side. C are four stretchers, each hinged to the end rail underneath the fixed top, and also hinged together

at D; it will be seen that there are two different lengths of stretchers, the long and short ones being placed alternately, so that when closed they will fold or overlap each other, as seen in Fig. 2, which, if they were of equal length, they would not do. The stretchers, C are also provided with dowels, (not shown) which fit into corresponding holes on the inside of B, and this simple contrivance adds much to the rigidity of the table when expanded. One of the portable or extra leaves, H, is provided with two pieces, G, one on each end, that exactly fits the space between the stretchers and prevents them from collapsing or folding while they are in. There are two hinged leaves, I, at the ends, each supported in the usual way by a hinged bracket seen in Fig. 2. A series of these stretchers can be

employed, although the table represented in our engraving has only one.

This table, with a bed three and a half feet long and 20 inches wide, can, by this device of unequal hinged stretchers, be extended seven or eight feet. Such a table can be afforded nearly as cheap as the heavy, six-legged dining table, which spreads but five feet. This mode of extension is applicable to any table.

It is the invention of Charles B. Clark, of Oriskany Falls, New York, and was patented by him 1st Dec., 1857. All further information respecting State or Territory rights can be had by addressing as above, or to E. L. Ferguson, Mount Pleasant, Iowa, or to George P. Clark, Guyandotte, Cabell Co., Va. Samples may be seen at J. Skarren's, 652 Broadway, New York.