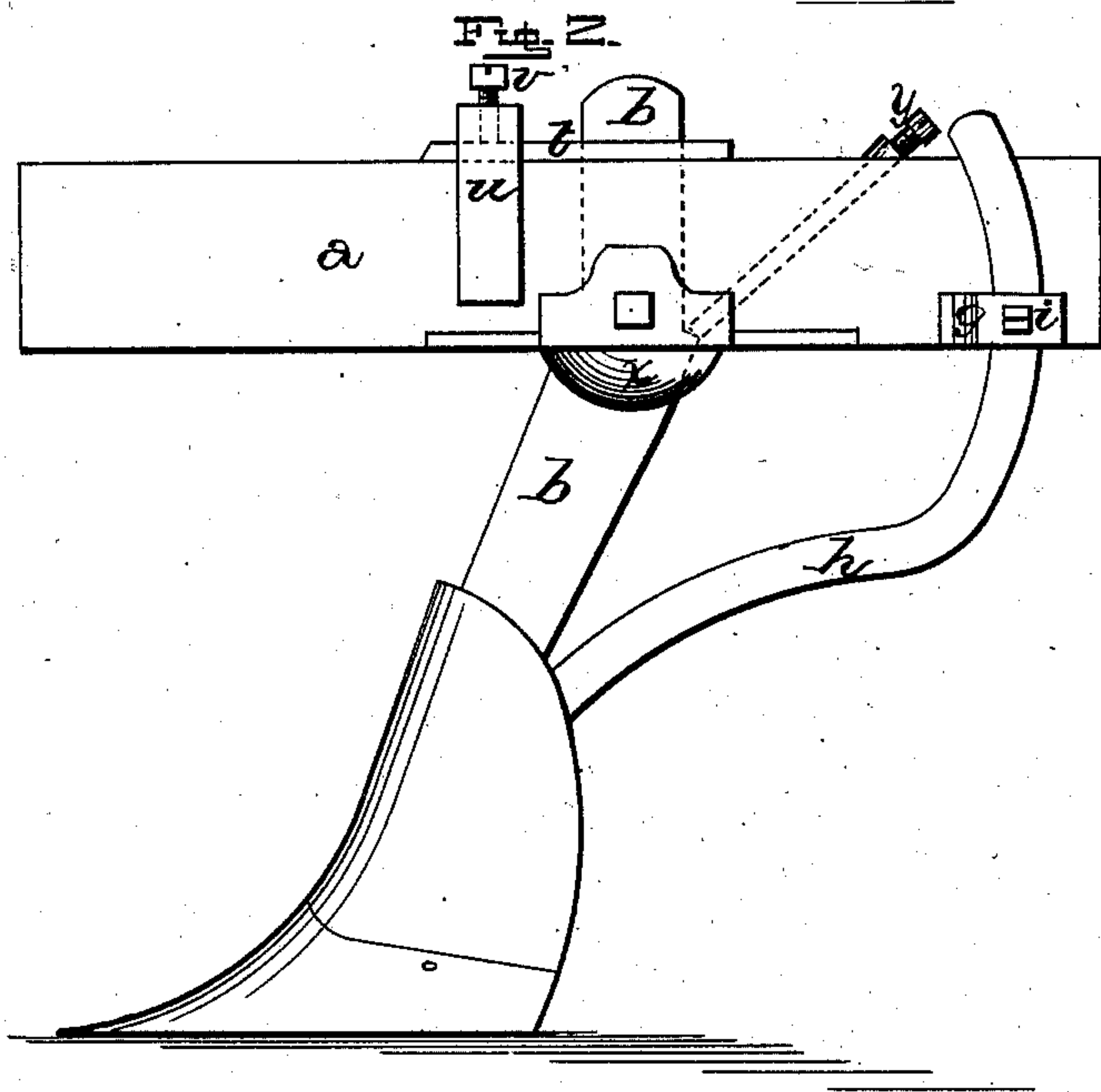
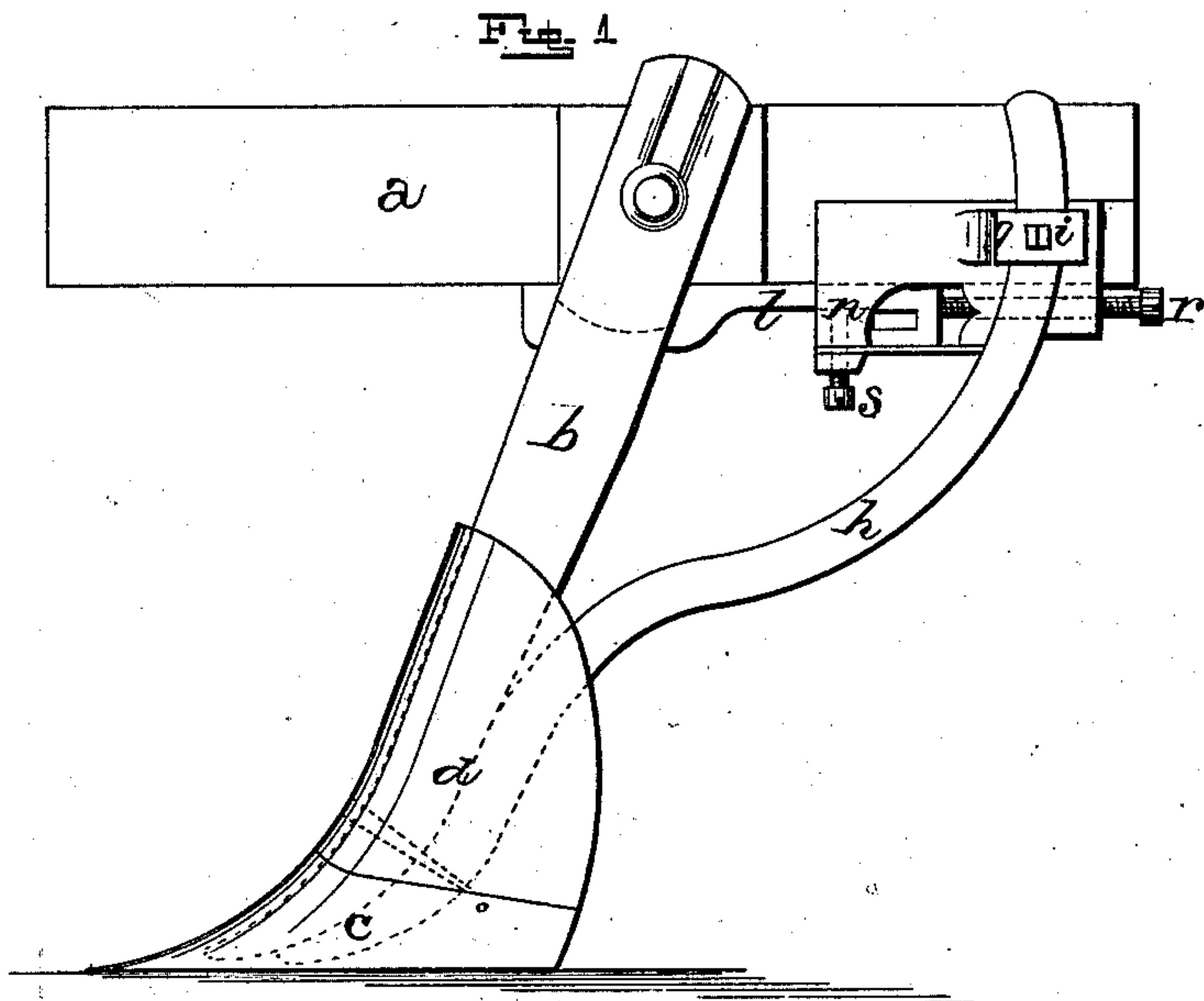


O. S. GANDY.  
Cultivator.

No. 203,132.

Patented April 30, 1878.



WITNESSES

*J. W. Garner*  
*Will. H. Kern*

INVENTOR.

*Oliver S. Gandy*  
Per *F. A. Lehmann*  
att'y

# UNITED STATES PATENT OFFICE.

OLIVER S. GANDY, OF NEWPORT, NEW JERSEY.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **203,132**, dated April 30, 1878; application filed March 12, 1878.

*To all whom it may concern:*

Be it known that I, OLIVER S. GANDY, of Newport, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to an improvement in cultivators; and it consists in the arrangement and combination of parts that will be more fully described hereinafter, whereby the standard is braced in position.

Figures 1 and 2 are side elevations of my invention in slightly different forms.

*a* represents the beam, and *b* the standard, pivoted thereto in the usual manner. Upon the lower end of this standard is fastened, in any suitable manner, the shovel, which shovel consists of a removable steel point, *c*, and a mold-board, *d*. When this point is worn out it can be readily removed and replaced by another without having to throw away the mold-board, as is the case when the two are made in a single piece.

Secured to the lower end of this standard, and extending upward through the guide *g* on the rear end of the beam, is the curved brace *h*, which serves to brace and hold the standard at any desired angle. Passing through the guide *g* is the set-screw *i*, which clamps the brace rigidly to the side of the beam, and thus prevents it from moving after it has once been adjusted. Where an iron beam is used the upper end of the standard will be hollowed out, as shown, so as to pass up over each side of the beam, which beam will be preferably made thicker at this point whenever the upper end of the standard will come in contact with it. In the lower edge of the slide *l* is made a notch, which catches over the top of the recess made in the top of the standard, so as to bind the slide and the standard securely together. As thus fastened together, the slide will be brought up under the lower side of the beam, as shown, and will bear against it as it moves back and forth with the standard. Being thus secured to the

standard, as the standard has its lower end adjusted back and forward in order to cause the shovel to run shallow or deep, the rear end of the slide will move back and forth in the guide-frame *n*, which is secured to the under side of the rear end of the beam *a*. The rear end of this slide is somewhat enlarged, as shown, and passing through the rear end of this guide-frame, so as to bear against this enlarged head, is the set-screw *r*, which is so adjusted as to prevent any backward movement on the part of the frame, after it has once been adjusted in position. Also, passing up through the under side of the guide-frame is another set-screw, *s*, which clamps against the under side of the slide, and thus still further assists in holding the slide in the position into which it may be adjusted.

Thus it will be seen that the standard is held at any desired inclination by means of the set-screw, which clamps the side of the curved brace, and by means of the two set-screws *r* *s*, which hold the slide securely in place. Should the screw which holds the curved brace be insufficient, then the other two screws will answer to hold the beam in position.

Where a wooden beam is used, as shown in Fig. 2, the upper end of the standard will pass through the beam, as shown, and the slide *t* will be placed upon the top of the beam, and held in position by means of the set-screw *v*, which passes down through the iron frame *u*, which straddles over the top of the beam and the slide. As the standard is adjusted back and forth, the slide and the curved brace will be adjusted with it, and after the slide and the curved brace have been securely locked in position, the standard will be held in the position to which it is adjusted, beyond all danger of its working loose.

The oval casting or fender *x* that rests upon the bottom of the beam, and through which the upper part of the standard passes, causes the standard to have a bearing against the beam when the standard is placed at any angle, and takes the strain from the bolt that passes through the side of the beam and the upper end of the standard.

The large screw *y*, that passes down through the beam to the under side, screws into the



casting and through it, so as to bear against the shoulder on top of the rear part of the standard, and for the purpose of holding it at any angle desired. This screw, with the curved brace, holds the standard immovable. The great trouble of using the brace alone is that the set-screw is so apt to work loose, and as it works loose the standard will be constantly changing its angle, so that no dependence can be placed upon it; and it is for this reason that I have added the slide, in connection with the curved brace, for the purpose of holding the standard at any desired angle.

Having thus described my invention, I claim—

The combination of the beam *a*, standard *b*, slide *l*, connected directly to the standard, a frame for the slide to move in, brace *h*, guide *g*, set-screw *i*, and the two set-screws *r* and *s*, for securing the standard in any position into which it may be adjusted, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of February, 1878.

OLIVER S. GANDY.

Witnesses:

AMBROSE GANDY,  
ROBERT B. TONKIN.