

No. 645,022.

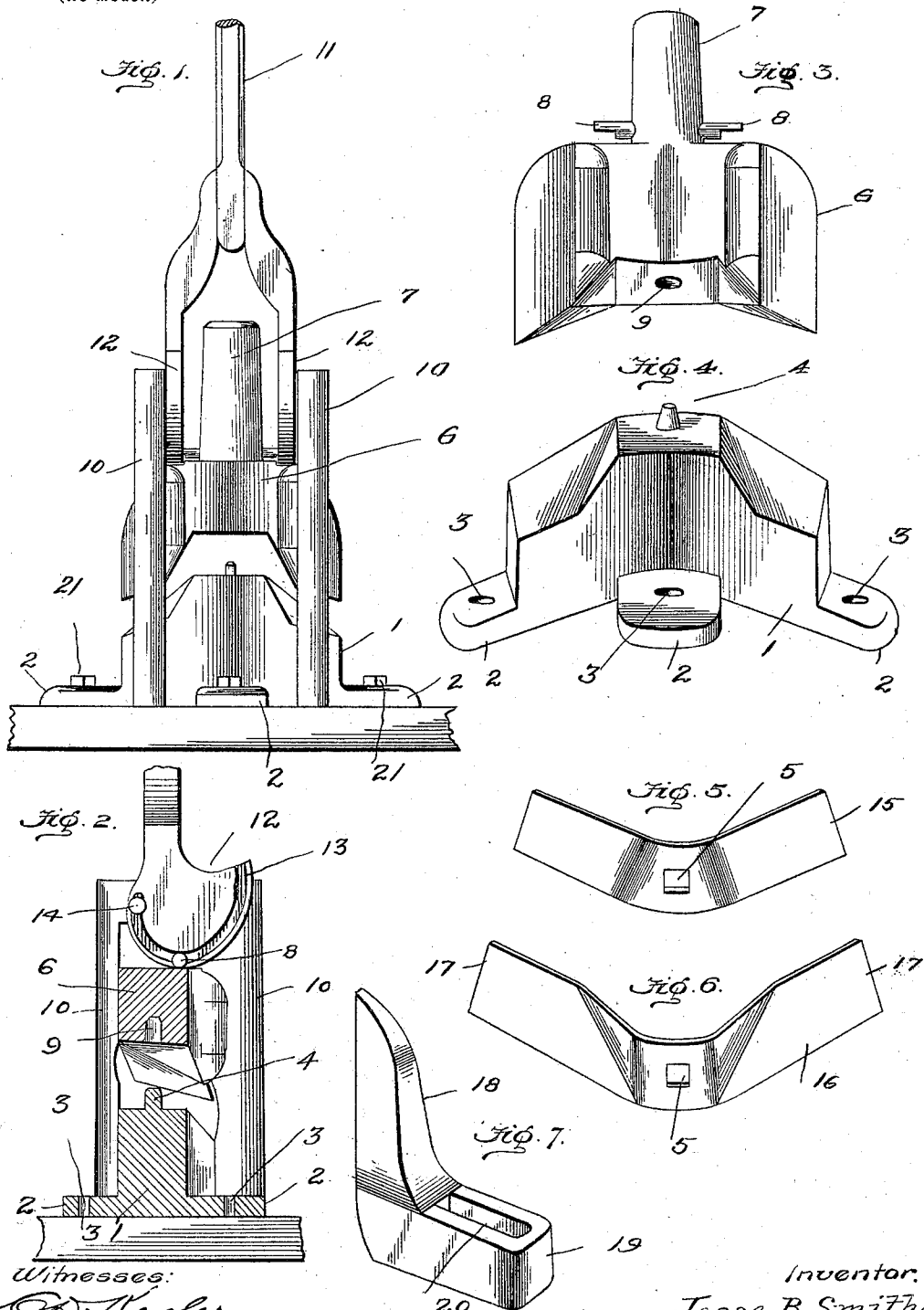
Patented Mar. 6, 1900.

J. B. SMITH.

MACHINE FOR SETTING OR FORMING SCRAPER BLADES.

(Application filed Oct. 18, 1899.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

JESSE B. SMITH, OF ALEXANDER CITY, ALABAMA.

MACHINE FOR SETTING OR FORMING SCRAPER-BLADES.

SPECIFICATION forming part of Letters Patent No. 645,022, dated March 6, 1900.

Application filed October 18, 1899. Serial No. 734,003. (No model.)

To all whom it may concern:

Be it known that I, JESSE B. SMITH, a citizen of the United States, residing at Alexander City, in the county of Tallapoosa and State of Alabama, have invented certain new and useful Improvements in Scraper-Setting Machines or Presses; 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 appertains to make and use the same.

My invention relates to machines for setting or forming scraper-blades for agricultural implements. These blades are usually made of wrought or malleable metal, and in order that they may be formed to the exact shape of the plow or cultivator upon which they are to be placed they must be made to conform to the seat or recess upon the cast-metal point of the plow or cultivator.

My machine is designed to give the exact set or formation to the blade of the scraper that will fit it to implements of any given size or manufacture.

The objects sought to be attained are to produce a machine for this purpose which shall be comparatively simple in construction, strong, and durable, which may be quickly operated to set or form the shape of the blade or scraper, and which shall at the same time facilitate the feeding of the blanks between the dies to be molded or formed, as well as render easy the removal of the completed blade or scraper after it has been formed or set to the required pattern. I attain the objects and advantages recited by means of the construction shown in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a rear elevation of my machine or press. Fig. 2 is a vertical section taken centrally through my machine or press. Fig. 3 is a perspective view of the upper or female die of my machine or press. Fig. 4 is a perspective view of the anvil or male die of my machine or press. Fig. 5 is a perspective view of the scraper-blade blank before it has been formed or set by my machine or press. Fig. 6 is a like view of the scraper-blade after it has been set or formed to the required shape by my machine or press, and Fig. 7 is a view in perspective of an adjustable guide

which I may use for the purpose of varying the contour of the outer ends of the scraper-blades.

Like figures of reference indicate like parts wherever they occur in the various views of the drawings.

1 is the anvil or male die, which is provided with feet 2 2 2 2 on either side, front, and rear. Bolt-holes 3 3 3 3 are formed in these feet 2 2 2 2 for the purpose of securing the machine or press rigidly in place upon a bench or other suitable support. The anvil 1 is provided with a central stud 4, designed for the purpose of centering the blank scraper-blade 15 when it is placed in the machine for the purpose of being set or formed, said stud 4 fitting into a bolt-hole 5, formed in the scraper-blank. The face of the anvil or male die 1 is formed to the required shape to give the desired angular set or contour to the blade and may be varied within certain limits.

The female die 6 is provided with a stud 7, which projects from its upper portion. Ears or lugs 8 8 project outward laterally from the sides of the stud 7, Fig. 3. The operative face of the female die 6 is a counterpart of the face of the anvil or male die 1 and is provided with a hole or aperture 9 to accommodate the centering-stud 4. The female die 6 is mounted in any suitable manner to slide within the upright guides 10 10. An operating-lever 11, provided with two cams 12 12, is mounted between the guides 10 10 for raising and lowering the female die 6. Cam-grooves 13, Fig. 2, are formed upon the inner faces of cams 12 12, and seated within these grooves are the ears or lugs 8 8 on the female die 6. These cams are pivoted at 14 to the guides 10 10.

When it is desired to set or form a scraper-blade, the blank 15, Fig. 5, is placed upon the anvil 1, the stud 4 entering the bolt-hole 5 in the blank. In this way the blank 15 is formed to approximate the shape or contour of the finished blade 16, Fig. 6, when the lever 11 is operated to bring the female die 6 forcibly down upon the blank 15 and press it into the shape required for the finished blade 16.

When it is desired to vary the shape or angle of the ends 17 17 of the blade 16, an adjustable guide 18, Fig. 7, may be used. This guide is provided with a foot 19, having a slot 20, designed to be adjustable upon bolts 21 21 at

the sides of the anvil 1. Two of these adjustable guides are used, one being placed at each end of the anvil (on the sides) and secured by nuts and washers to hold them adjusted at any point within the limit of the slot 20 to force the ends of the scraper-blade farther forward and create a greater angle between them—that is, make the two sides 17 17 more nearly approach a parallel.

- 10 It will be obvious from the foregoing that I have produced a machine of simple construction which will quickly and reliably form or set scraper-blades, one which is not liable to get out of order easily, which can be manufactured at slight cost, and which will when
15 adjusted to conform to any given pattern preserve that pattern until the adjustment is changed to conform to some other pattern.

What I claim is—

- 20 1. A machine for forming, or setting, scraper-blades, consisting of an anvil, having a stud projecting from the face thereof; a sliding female die, having ears, or lugs, projecting laterally therefrom; an operating-le-
25 ver, provided with cams, and cam-grooves on

the inner faces of said cams to accommodate the ears or lugs on the female die, said lever being pivoted to a guideway within which the female die slides, substantially as described.

2. In a machine of the class described, a rigid anvil or die; a sliding female die, mounted to move toward and from the anvil within a guideway, and an adjustable guide, or former, designed to be secured at the sides of the anvil in adjusted position to vary the contour, or shape, of the ends of the scraper-blade, substantially as described.

3. In a machine of the class described, the anvil, 1, within the guides, 10, 10; the female die, 6, mounted to slide within said guides; cam-lever, 11, 12, for moving the female die from and toward the anvil; the stud, 4, on the anvil, and the aperture, 9, in the female die, substantially as described.

In testimony whereof I do affix my signature 45 in presence of two witnesses.

JESSE B. SMITH.

Witnesses:

A. J. COLEY,

I. T. ADCOCK.