

No. 753,565.

PATENTED MAR. 1, 1904.

S. J. GALLOWAY.
SAW SWAGING AND FILING GAGE.

APPLICATION FILED FEB. 28, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1

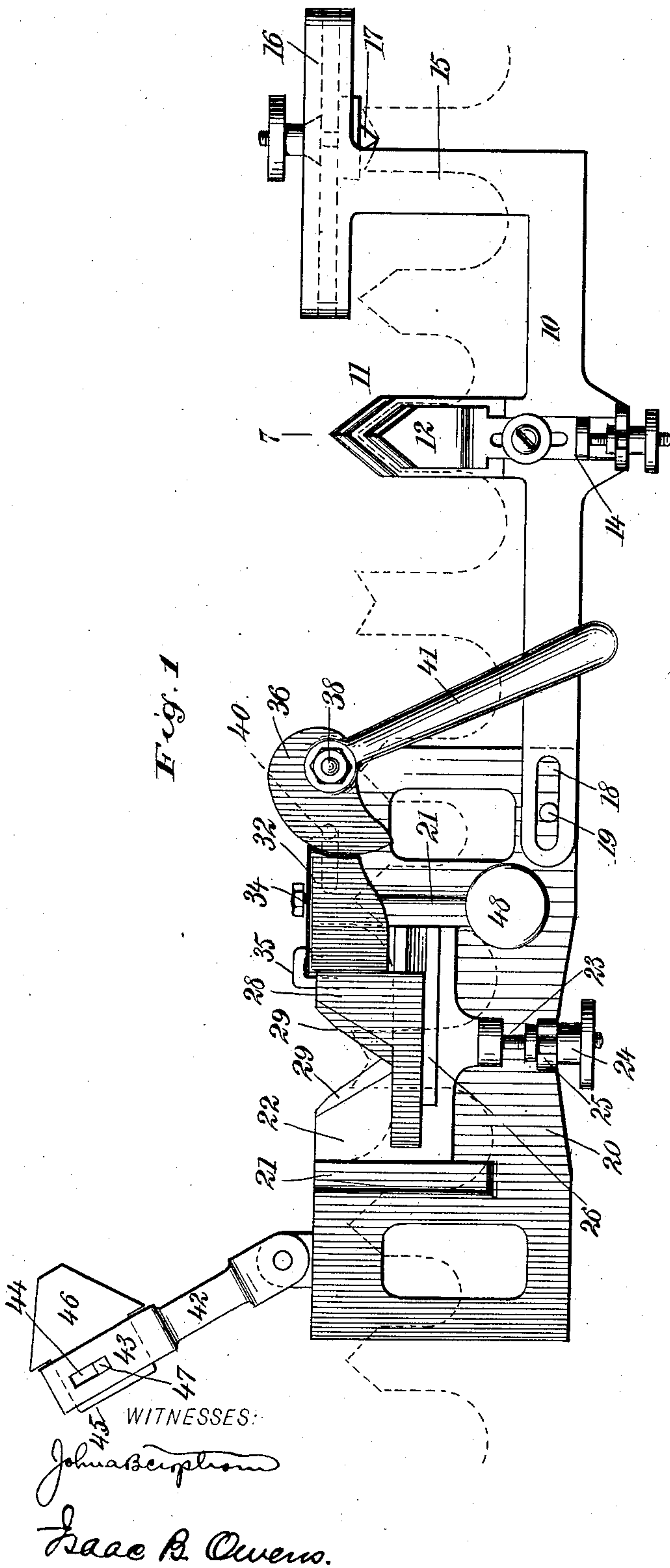
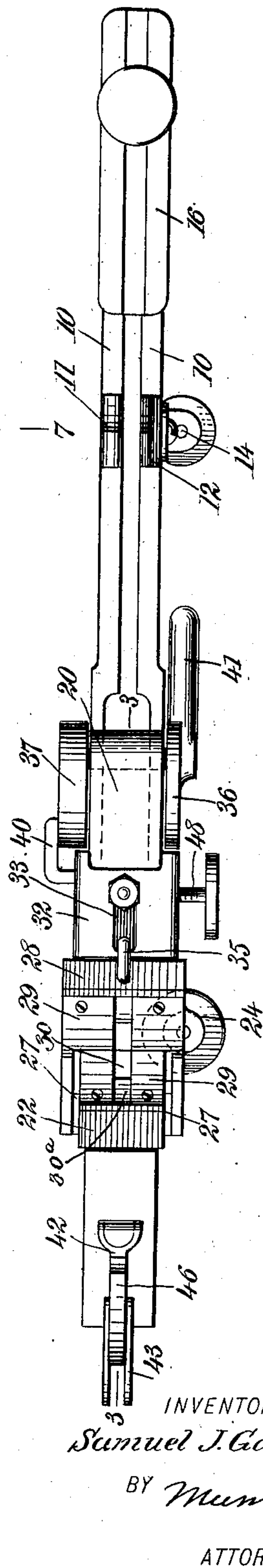


Fig. 2



No. 753,565.

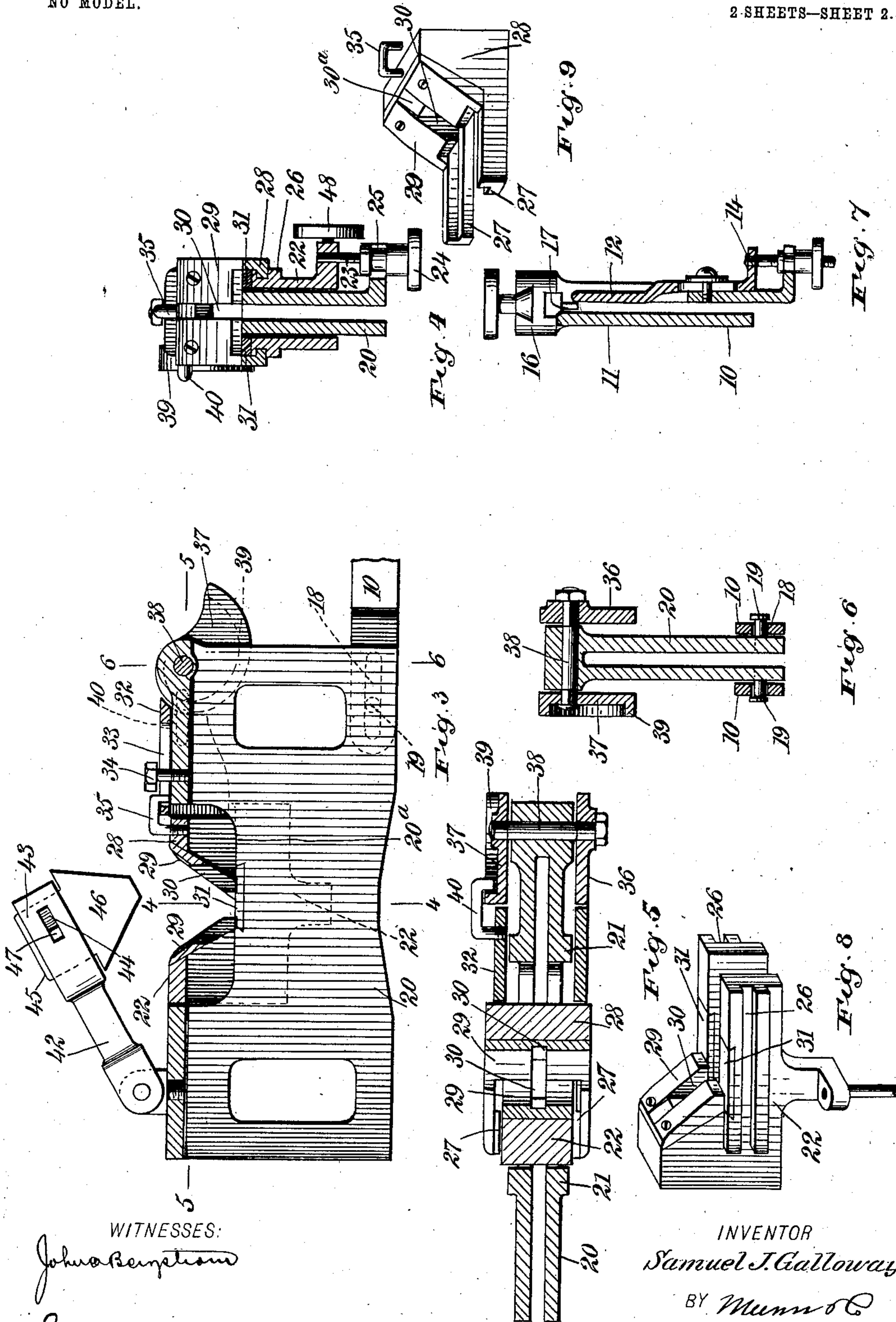
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WITNESSES:

John Bengtson

Isaac B. Owens.

INVENTOR

Samuel J. Galloway

BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL JAY GALLOWAY, OF HILLSBORO, OREGON.

SAW SWAGING AND FILING GAGE.

SPECIFICATION forming part of Letters Patent No. 753,565, dated March 1, 1904.

Application filed February 28, 1903. Serial No. 145,468. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL JAY GALLOWAY, a citizen of the United States, and a resident of Hillsboro, in the county of Washington and State of Oregon, have invented a new and Improved Saw Swaging and Filing Gage, of which the following is a full, clear, and exact description.

This invention relates to a tool adapted especially for cross-cut or drag saws; and it comprises novel devices for swaging or truing the drag-teeth and for gaging the filing or sharpening of the cutting-teeth, these devices being embodied in a single instrument, so that by means of this instrument the entire saw may be put in order.

This specification is an exact description of one example of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the instrument, its position with respect to the saw being shown by dotted lines. Fig. 2 is a plan view of the invention. Fig. 3 is a section of the swager on the line 3 3 of Fig. 2. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a section on the line 5 5 of Fig. 3. Fig. 6 is a section on the line 6 6 of Fig. 3. Fig. 7 is a section on the line 7 7 of Fig. 1. Fig. 8 is a detail perspective view of the main swaging-jaw, and Fig. 9 is a detail perspective view of the auxiliary swaging-jaw.

The filing-gage is similar in its major features to that disclosed in my copending application for Letters Patent filed July 2, 1902, Serial No. 114,044, and comprises, briefly stated, the double body portion 10, having the gage-points 11 and 12, the latter adjusted by the devices 14. The double body portion 10 is adapted to straddle the saw and has at its outer end two upwardly-projecting extensions 15, carrying a guide 16, with an adjustable point 17, adapted to engage a convenient drag-tooth, so as to support the filing-gage in place. All of this will be fully understood from my copending application referred to above. At the end opposite the extensions 15 the two

parts of the body 10 are formed each with a slot 18, and these slots 18 loosely receive pins 19, projecting from the sides of the body 20 of the swager. This body is in the form of a saddle, as best shown in Figs. 3, 4, and 6, it being arranged to straddle the saw, as indicated, and by means of the parts 18 and 19 the swaging and gage devices may be adjusted toward and from each other, so as to fit the saw, as will be hereinafter fully described. On each side of the body 20 are arranged two vertical guides 21, (see Figs. 1 and 5,) and between these guides set the side portions 22 of the main swaging-jaw, these side portions lying against the sides of the body 20 and the main jaw being vertically adjustable on the body by means of screws 23, nuts 24, and lugs 25, the last-named being secured to the body 20. The main swaging-jaw has a guide 26 formed on each side thereof and transversely disposed, and these guides receive the beads 27, formed on the inner faces of the side portions of the auxiliary swaging-jaw 28, thus mounting said jaw on the main jaw to move vertically therewith; but the auxiliary jaw is also capable of sliding horizontally on the main jaw. Each jaw comprises hardened faces 29, in which are formed cavities 30 for the reception of the drag-teeth of the saw. These cavities 30 have outwardly-leading extensions 30^a, forming shoulders over which the points of the drag-teeth of the saw are swaged upon the action of the swaging-tool, as will fully appear hereinafter. The faces 29 of the two swaging-jaws are disposed in V-shape arrangement, as illustrated best in Figs. 1 and 3. Each of the swaging-jaws is saddle-like in form, the middle portions passing transversely over the body 20 and both lying in a recess 20^a, formed in the top of the body, as shown in Fig. 3. 31 indicates hardened face-plates, which are set in the bottom of the recess 20^a between the swaging-jaws.

The saddle-shaped slide 32 is mounted on top of the body 20 to the right of the auxiliary swaging-jaw 28 and is formed with a slot 33, in which fits loosely a pin 34, fastened to the body 20, whereby to guide the slide. A hook 35 is fastened to the auxiliary jaw 28 and is engaged loosely in the slot 33. This

allows the vertical movement of the two jaws without interfering with the connection of the auxiliary jaw with the slide 32. The slide 32 is for the purpose of imparting a horizontally-sliding movement to the auxiliary jaw. The slide device is driven to the left by two cams 36 and 37, carried on a rock-shaft 38, mounted in the right-hand extremity of the body 20. On the cam 37 a flange 39 is formed, and this flange is engaged with a hook 40, fastened to the slide 32, whereby the slide is moved rightward.

41 indicates a lever connected with one of the cams and facilitating the manual operation thereof. In Fig. 1 the cams are shown as throwing the auxiliary jaw inward. In Fig. 3 the cams are shown with the auxiliary jaw drawn outward.

An arm 42 is mounted to swing on the upper left-hand side of the body 20, and the free end of this arm is formed with a fork 43, the arms of which have longitudinal slots 44 therein, and between these arms fits loosely the shank 45 of the swager 46. This shank has pins 47 projecting from its sides and fitting loosely in the slots 44, by which construction the swager is permitted to be adjusted longitudinally of the arms. The swager is substantially V shape in form and is adapted to be thrown down between the swaging-jaws to bear on the drag-tooth.

The use of the invention will, it is thought, be quite clearly understood by persons skilled in the art. After adjusting the instrument as shown in Fig. 1 and throwing down the swager 46, so that it bears on the drag-tooth adjacent thereto, by striking a blow on the shank of the swager, it will be caused to act on the drag-tooth and true the same, at the same time bending the points out over the extensions 30^a of the cavities 30. Also the hardened faces 29 serve as a gage for filing the drag-teeth, the same as the gages 11 and 12 allow of filing the cutting-teeth. Also the gage-body 10 should be adjusted so that the gages 11 and 12 lie opposite a certain cutting-tooth, and then this tooth may be filed. When this has been done, the device should be moved along the saw until it comes in position to act on two other teeth, and then the above-described operation should be repeated. When the handle 41 is thrown down to slide the auxiliary swaging-jaw toward the main jaw, these jaws are then caused to clamp the sides of the drag-tooth between them. This holds the parts firmly engaged with the tooth. For further securing the body of the device in

place during the swaging operation I provide a thumb-screw 48, mounted in the side of the body 20 and in position to be forced against the saw, thus clamping the body 20 on the saw.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the intent of my claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a body, a main clamping-jaw mounted to move transversely thereon, means for so moving the main clamping-jaw, an auxiliary clamping-jaw carried by the main clamping-jaw and slidable thereon, means for sliding the auxiliary clamping-jaw and a swager coacting with said jaws.

2. The combination of a body, a main clamping-jaw mounted to move transversely thereon, means for so moving the main clamping-jaw, an auxiliary clamping-jaw carried by the main clamping-jaw and slidable thereon, means for sliding the auxiliary clamping-jaw, a swager coacting with said jaws, said means for sliding the auxiliary jaw comprising a slide in connection therewith, and a cam having engagement with the slide to impart the afore-said movement thereto.

3. The combination of a body, a clamping-jaw mounted to move thereon, means for so moving the clamping-jaw, an auxiliary clamping-jaw carried on the main clamping-jaw and independently movable thereon, and means for so independently moving the auxiliary clamping-jaw.

4. The combination of a body, a main clamping-jaw mounted to move thereon, means for so moving the main clamping-jaw, an auxiliary clamping-jaw mounted on the main jaw and movable independently thereof, a slide in connection with the auxiliary clamping-jaw and mounted on the body, a hook attached to the slide, and a cam having a flange engaging the hook and slide, whereby upon the movement of the cam a reciprocal movement is imparted to the slide.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL JAY GALLOWAY.

Witnesses:

JOHN M. WALL,
EVA WEATHERED.