No. 850,255. PATENTED APR. 16, 1907.

J. ROYSE.

COMBINATION DEVICE.

APPLICATION FILED SEPT. 10, 1906.

2 SHEETS—SHEET 1.

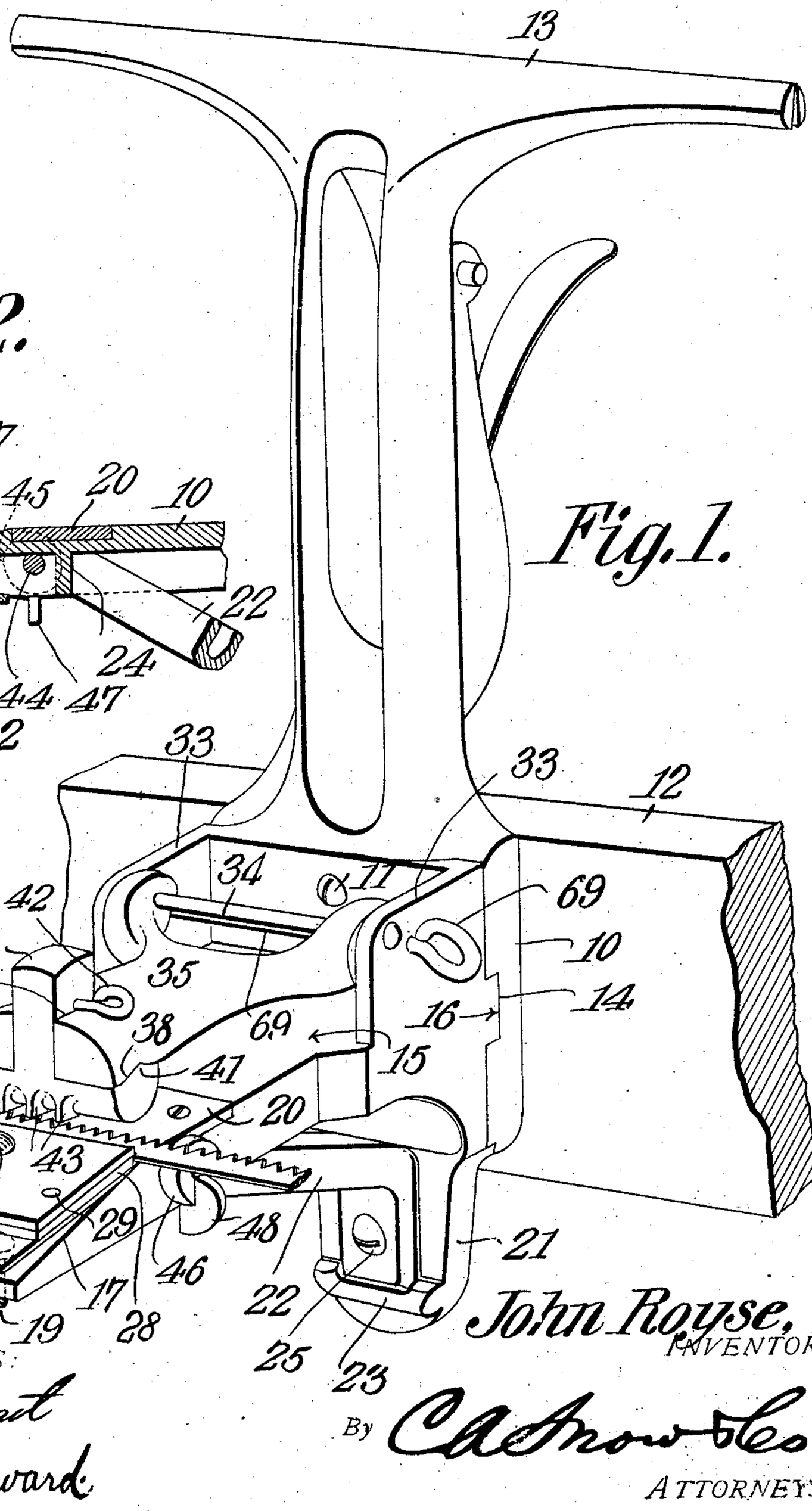

Fig. 1.

Fig. 2.

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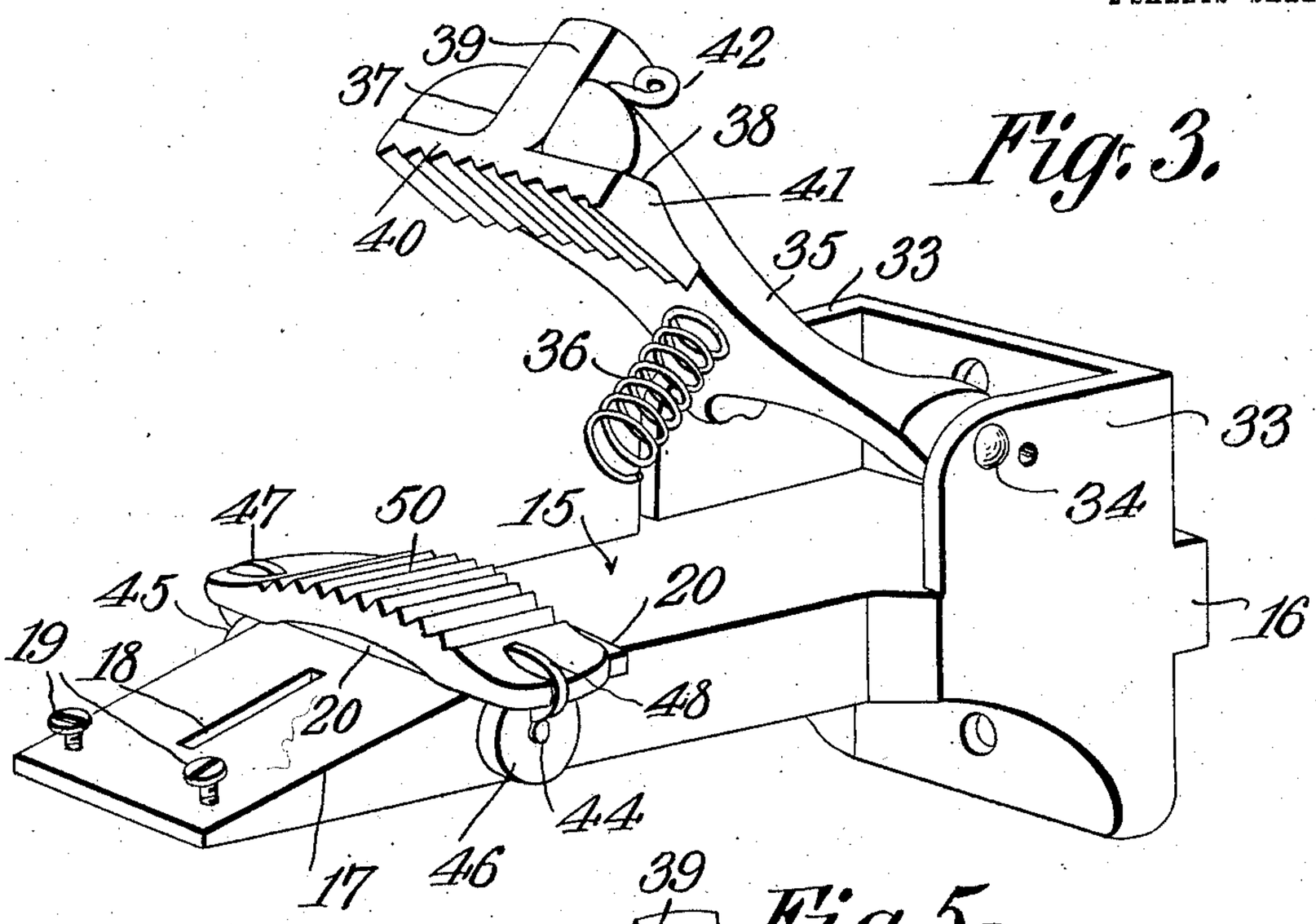

Fig. 3.

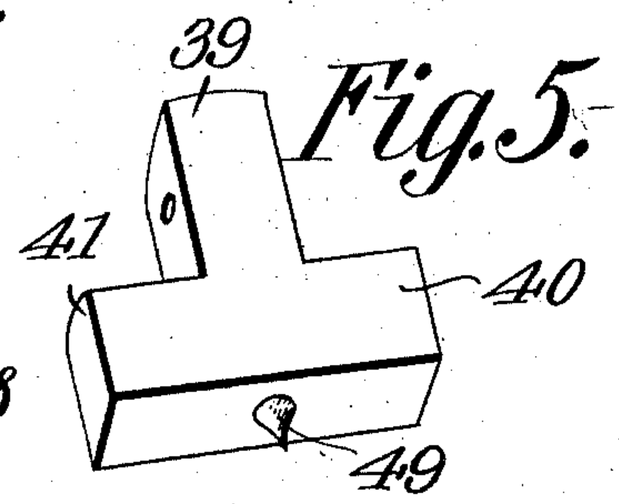

Fig. 5.

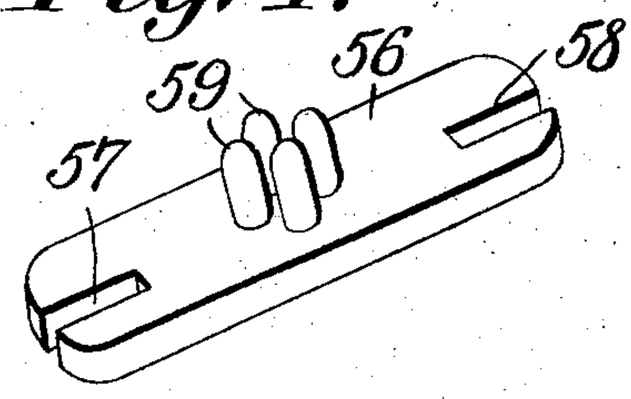

Fig. 4.

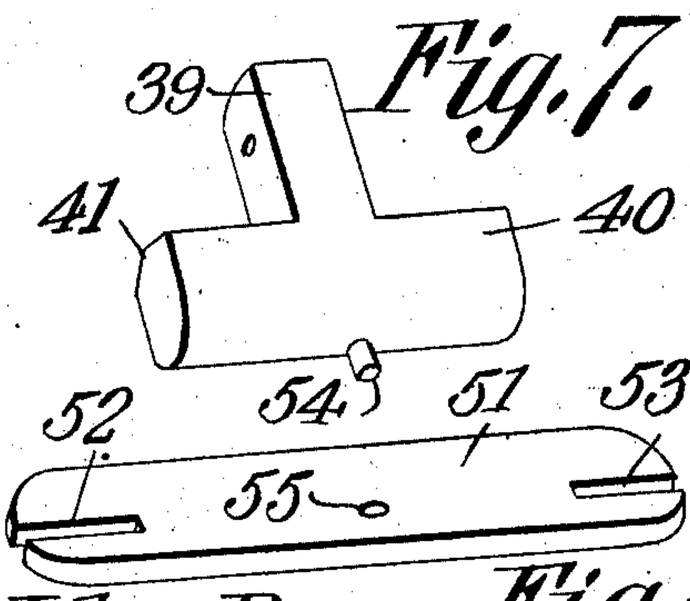

Fig. 7.

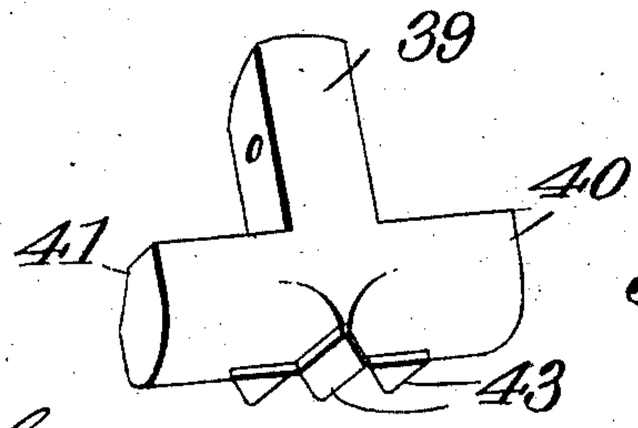

Fig. 6.

Fig. 8.

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UNITED STATES PATENT OFFICE.

JOHN ROYSE, OF SHERMAN, TEXAS.

COMBINATION DEVICE.

No. 850,255. Specification of Letters Patent. Patented April 16, 1907.

Application filed September 10, 1906. Serial No. 334,011.

To all whom it may concern:

Be it known that I, JOHN ROYSE, a citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented a new and useful Combination Device, of which the following is a specification.

This invention relates to devices for operating upon metal in various shapes, and has for its object to improve the construction and increase the efficiency and utility of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a perspective view of the improved device arranged for use as a saw-setting apparatus. Fig. 2 is a sectional detail of the outer portion of the device illustrating the construction. Fig. 3 is a perspective view of the improved device arranged for crimping the end of a section of stovepipe or similar structure. Fig. 4 is a perspective view of the wire-bending attachment. Fig. 5 is a perspective view of the hollow rivet-heading implement. Fig. 6 is a perspective view of one of the saw-setting dies. Figs. 7 and 8 are perspective views of the dies employed for punching metal.

The improved implement comprises a bed or bracket 10, adapted to be bolted or otherwise secured, as at 11, to a suitable support (indicated at 12) and preferably extended into a saw-holding vise 13 of approved construction and with an intermediate horizontal channel or seat 14. Bearing against the base 10 is a frame consisting of a main body 15, having a rib 16 engaging the seat 14 and secured to the base by the same bolts 11 by which the base is secured to the support 12. The outer upper face of the body 15 is inclined, as at 17, and provided with a longitudinal slot 18 and adjusting-screws 19. An anvil-plate 20, of hardened steel, is embedded in the upper face of the body 15, and the latter is supported from a depending portion 21 of the base 10 by a diagonal brace 22, the latter engaging a socket 23 on the portion 21 and bearing against a rib 24 on the under side of the body 15. The brace is bolted, as at 25, to the depending portion 21. By this means the body 15 and its attachments are firmly supported and adapted to withstand the severe strains to which it is subjected

Bearing at one edge upon the inclined portion 17 of the body 15, near the outer edge of the anvil-plate 20, is a plate 26, the outer portion of the plate bearing in turn upon the adjusting-screws 19 and adjustable vertically thereby. Superimposed upon the plate 26 are two other plates 27 28 and secured thereto, as by rivets 29, the plate 27 being of less width than the plate 28, whereby a recess is formed next the anvil 20 to receive the back edge of the saw-blade to be "set," as represented at 30 in Fig. 1. A binding-bolt 31 passes through the plates 26, 27, and 28, and the slot 18 and provided with a clamp-nut 32, bearing beneath the inclined portion 17 of the body 15. By this means the plates may be set at any angle relative to the anvil and the saw-holding recess adjusted to any position to adapt the device to different widths of saws and to set the saws to any desired "rake," as hereafter more fully described.

Extending transversely of the body 15 and beneath the anvil-plate 20 is a shaft 44, having disks 45 46 at the ends, the disks provided, respectively, with radial ears 47 48, adapted to project above the face of the anvil-plate when the disks are disposed in one position, the object to be hereafter explained. Rising from the body 15 are spaced ears 33, and pivoted at 34 between these ears is an arm 35, the arm carrying a spring 36, operating to hold the arm yieldably spaced from the body 15. At its outer end the arm 35 is provided with a vertical open socket 37 and with a transverse recess 38 in its lower face. The socket and recess are designed to receive and support the various metal forming and operating attachments, each attachment having a stock 39 for entering the socket 37 and a transverse body 40, provided with a convex face 41, to engage the recess 38, the stock being retained in position by a pin 42 or other suitable fastening means. By this means any of the various attachments represented may be connected to the arm 35, as will be obvious.

In Figs. 1 and 6 the body 40 is shown provided with saw-tooth-setting dies 43, and

when this attachment is connected to the arm 35 and the saw-adjusting plates arranged to hold the saw-blade in the required position a blow of a hammer upon the head of the stock 39 will cause the dies 43 to engage the teeth of the saw and set the same by bending them over the margin of the anvil-plate, as represented in Figs. 1 and 2. By providing a plurality of the saw-setting attachments having the dies corresponding to various sizes or "numbers" of saw-teeth it is obvious that the device may be readily adapted to operate upon a corresponding variety of saws and without structural changes in the device.

When the device is to be employed for other purposes than for setting saw-teeth, the plates 26, 27, and 28 and the bolt 31 and its nut 32 are detached to provide room for the other attachments. Thus, when the hollow rivets usually employed in leather articles are to be clenched the attachment illustrated in Fig. 5 is connected to the arm 35 and the conical stud 49 thereon utilized to expand and clench the rivet held in position upon the anvil-block 20.

When the end of a section-stovepipe is to be crimped to facilitate its entrance into the adjoining section, the attachment shown in Fig. 3 is connected to the arm 35 and the disks 45 46 reversed in position to bring the lugs 47 48 upward and projecting above the anvil-block and in position to receive the member shown at 50 in Fig. 3, the member 50 having slots to bear over the lugs, as shown.

When a hole is to be punched in a piece of metal, the attachment shown in Fig. 7 is connected to the arm 35 and the attachment 51 shown in Fig. 8 disposed upon the anvil-block 20 with its slots 52 53 bearing over the upturned lugs 47 48, the attachment shown in Fig. 7 having a punch 54 and the plate 51 having a corresponding die 55. When wire is to be bent, the attachment 56 is placed upon the anvil-block with its slots 57 58 bearing over the lugs 47 48, the plate 56 having spaced studs 59, around which the wire is to be bent. A pin 69 extends through the ears 33 rearwardly of the arm 35 to limit the upward movement of the same under the influence of the spring 36 to prevent undue movement of the arm. By removing the pin the arm can be moved into a vertical position, if required, as illustrated in Fig. 3.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a supporting-frame having an anvil-face, an arm swinging upon said frame and with a socket at its free end and a recess transversely of the socket, an implement comprising a body having a die-face at one side and formed to bear within said recess at the other side and with a stock which passes through said socket and is exposed above the arm, and means for detachably coupling said stock to said arm.

2. In a device of the class described, a supporting-frame, disks journaled thereto and having ears which are adapted to be located above the upper surface of the frame, an anvil-faced member having slots which receive said ears, an arm swinging upon said frame and an implement carried by said arm for engagemnt with said anvil-faced member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN ROYSE.

Witnesses:
T. W. HUDSON,
I. R. HORTON.