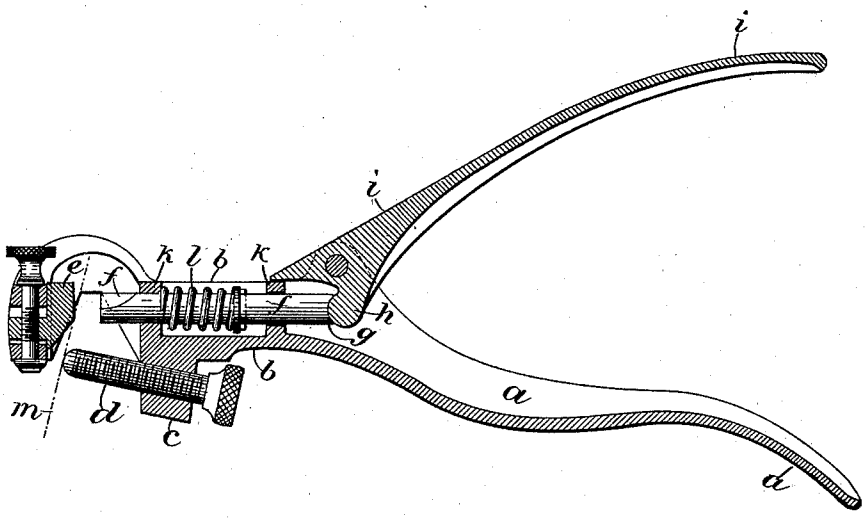
(No Model.)

C. MORRILL

SAW SET.

No. 441,962. Patented Dec. 2, 1890.



ATTEST:
F. F. Courcy
Wm. H. Capel

INVENTOR:
Chas. Morrill
By J. H. Hundley
Attorney

UNITED STATES PATENT OFFICE.

CHARLES MORRILL, OF NEW YORK, N. Y.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 441,962, dated December 2, 1890.

Application filed July 18, 1890. Serial No. 359,203. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MORRILL, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Saw-Sets, of which the following is a specification.

My invention relates to novel improvements in saw-sets having an adjustable or fixed anvil and a horizontally-movable hammer, together with a device for adjusting the saw preparatory to having its teeth set in the position desired.

Saw-sets as heretofore constructed were provided with a horizontally-moving hammer having a portion of its body flattened and adapted to engage with a corresponding opening made in the vertical wall of the main body of the device, thus preventing its turning when in operation. The rear end of the said hammer was also provided with a plain surface arranged at right angles to the horizontal center thereof, and adapted to engage in frictional contact with the cam end of the punch-handle of the device. The main bodies of these saw-sets were also provided with an adjustable guide-plate adapted to move horizontally when adjusting the saw to be operated upon. I find that constructing the hammer with its flat surface as also the corresponding perforations in the vertical wall of the main body of the device are objectionable, from the fact that it requires a considerable amount of labor, and thus increasing the cost of manufacture. I propose to simplify the construction in this respect, as also that of the adjustable guide-plate, and thereby reduce the amount of labor and cost of manufacture.

The foregoing objections are obviated by my invention, which consists, first, of a cylindrical hammer having its rear end concaved and adapted to work in frictional contact with a correspondingly-shaped cylindrical portion integral with the lower end of the fulcrumed punch-handle of the device.

My invention also consists of the adjusting device composed of a single screw arranged on the under side of the main body of the device and at a suitable depending angle to the horizontal center thereof.

The accompanying drawing represents a vertical section of the complete saw-set, in which is shown the main features of my invention.

Similar letters refer to similar parts throughout the drawing, in which—

a represents the punch-handle holder, and *b* the main body. The forward portion thereof is provided with the depending lug *c*, having an internally-screw-threaded perforation, the latter being adapted to receive the adjusting-screw *d*, which is arranged at a suitable angle to the horizontal center of the main body *b*. The extreme forward end of the device is of course provided with the ordinary adjustable anvil *e*, the latter of which is operated upon by the cylindrical and horizontally-moving hammer *f*. The rear end of the latter is provided with the concavity *g*, which is adapted to work in frictional contact with the cylindrical projection *h*, integral with the lower end of the punch-handle *i*. The hammer is held in proper alignment by means of the perforations made in the vertical walls *k* of the main body *b* of the device, and is carried back to its normal position by means of the retracting-spring *l*.

Modus operandi: The adjusting-screw is first set forward, so that when the blade of the saw is passed inwardly on a line indicated by the dotted line *m* the plane thereof will be at right angles, or nearly so, to the vertical center of the adjusting-screw. The punch-handle is then compressed, whereupon the cylindrical projection thereof engages with the concaved end of the hammer and forces it forward against the tooth, thereby pressing the latter against the vertical plane of the anvil and thus giving the tooth the proper bend.

It will be obvious that the concavity on the rear end of the hammer aforesaid will, while in contact with its corresponding abutting surface of the punch-handle, prevent the same from turning.

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

1. The combination, with a saw-set having an adjustable or fixed anvil and saw-adjusting device, of a horizontally-moving cylindrical hammer having a concaved end adapted to work in frictional contact with the cylin-

drical projection on the lower end of the punch-handle, substantially as shown and described.

2. The combination, with a saw-set having an adjustable or fixed anvil and horizontally-moving cylindrical hammer, of the saw-adjusting device composed of a screw arranged at a suitable angle to the horizontal center of the main body of the device and supported by the correspondingly-depending screw-threaded lug arranged on the under side of the device, substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 17th day of July, A. D. 1890.

CHAS. MORRILL.

Witnesses:
HUGO KOELKER,
THOS. F. COUREY.