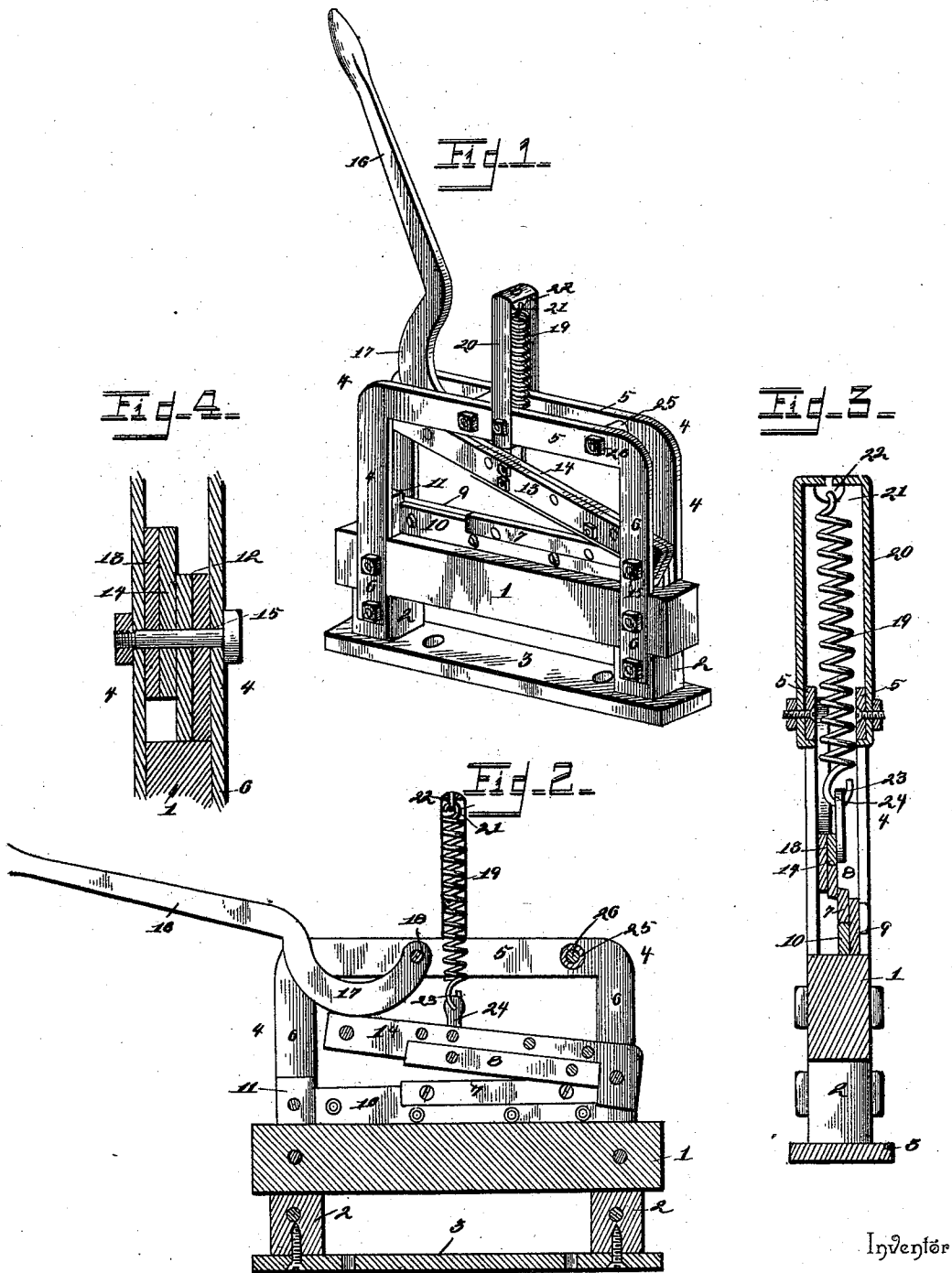


(No Model.)

B. P. AUTREY.
METAL CUTTING SHEARS.

No. 529,639.

Patented Nov. 20, 1894.



Inventor

Benjamin P. Autrey.

Witnesses

Thos W. Riley.
J. J. Riley

By his Attorneys.

Cashow & Co.

UNITED STATES PATENT OFFICE.

BENJAMIN P. AUTREY, OF PILOT POINT, TEXAS.

METAL-CUTTING SHEARS.

SPECIFICATION forming part of Letters Patent No. 529,639, dated November 20, 1894.

Application filed August 15, 1894. Serial No. 520,377. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN P. AUTREY, a citizen of the United States, residing at Pilot Point, in the county of Denton and State of Texas, have invented new and useful Metal-Cutting Shears, of which the following is a specification.

The invention relates to improvements in shears.

The object of the present invention is to improve the construction of metal cutting shears, and to provide a simple and effective device capable of readily cutting hot or cold metals of all kinds, and similar material.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings: Figure 1 is a perspective view of a metal cutting device constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail sectional view of the jaws.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a bed, comprising a longitudinal bar constructed preferably of wood, vertical supporting posts 2, and a horizontal base 3, designed to be secured to a suitable support, such as a bench, or the like, and having the posts 2 mounted upon it at its ends. The horizontal bed 1 is secured to the posts 2 by a pair of parallel rectangular frames 4, comprising horizontal top bars 5 and integral vertical side bars 6, which are secured at opposite sides of the bed and the posts, and serve as means for connecting the same. The lower ends of the sides of the rectangular frames extend below the bed and are let into recesses of the bed and the posts, and have their outer faces flush with the outer faces of the same, and are preferably attached by transverse bolts.

The rectangular frames, which are constructed of metal, support a lower stationary jaw 7 and an upper pivoted cutting jaw 8. The lower jaw, which is constructed of suitable steel, is secured to the inner side of a horizontal bar 9, which is mounted edgewise

on the upper face of the bed and has its ends secured to the adjacent rectangular frame. The lower jaw 7 is supported by a horizontal bar 10, arranged at the inner side of the bar 9, and provided at its upper edge with a recess receiving the jaw 7, which is detachably secured to the bar 9 by suitable bolts or screws. The supporting bar 10 is riveted or otherwise fastened to the horizontal bar 9, and terminates adjacent to the sides of the rectangular frames. A block 11 is interposed between one end of the horizontal bar 9, and one side of the rectangular frame, at the opposite side of the bed; and the space at the other end of the horizontal bar 9 is filled by an extension 12 of the supporting bar 10 and by the lower ends of bars 13 and 14, which carry the upper pivoted cutting jaw 8. The terminals of the bars 9 and 10, at this end of the frame, are extended vertically, and are perforated to receive a bolt 15, which passes through the bars 13 and 14, and serves as a pivot for the upper cutting jaw 8, and as the means for fastening the adjacent ends of the bars of the lower jaw.

The bar 14 is recessed similarly to the bar 10, and receives the upper blade or jaw 8, which is detachably secured to the bar 13, these two bars 13 and 14 being riveted together, and the former being guided by the adjacent rectangular frame.

The pivoted jaw is operated and forced downward for cutting by a cam lever 16, constructed of metal and curved at adjacent to its inner end, which is provided with an eye 18, and which is pivoted by a transverse bolt between the upper horizontal bars of the rectangular frames. The return or upward movement of the pivoted cutting jaw is produced by a vertically disposed spiral spring 19, which is located normally above the rectangular frame in a rectangular support 20. It has its upper end 21 hooked into an eye 22 of the support 20, and its lower end 23 engages a perforation of a link 24 which is secured to and projects upward from the pivoted jaw. The rectangular support 20 is constructed of metal, and has the lower terminals of its sides secured to the outer faces of the top portions 5 of the rectangular frames; and the latter, at one end of the machine, above the pivoted end of the upper jaw are spaced

by a sleeve 25, through which passes a connecting bolt 26.

The jaws 7 and 8 are provided with adjacent cutting edges, and are slightly beveled to produce the same, and they are capable of readily severing rod metal, and similar material, when in either a hot or cold condition; and the machine will be found especially advantageous for blacksmiths and the like.

10 It will be apparent that the metal cutting device is simple and comparatively inexpensive in construction, that it possesses great strength and durability, and that it is positive in its cutting operation.

15 Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

20 What I claim is—

1. In a metal-cutting device, the combination of a bed, the parallel vertically disposed rectangular frames rising from the bed and each consisting of similar vertical sides, and 25 a horizontal top bar, a lower stationary jaw having its terminals secured between the adjacent sides of the rectangular frames, a movable upper jaw having one end pivoted between the adjacent sides of the frames and having its other end guided by the other sides 30 of the frame, a cam lever pivoted intermediate of the terminals of the top bars of the frames and located between them and guided by the frames and engaging the pivoted jaw, and a spring connected with the tops of the 35 frames and to the pivoted jaw, substantially as described.

2. In a metal cutting device, the combination of a base, posts mounted on the same, a

horizontal bed supported by the posts, the parallel vertically disposed rectangular frames 40 having the lower terminals of their sides secured to the opposite faces of the bed and the post, a rectangular support mounted centrally on the frames and extending upward from the 45 same and having the lower terminals of its sides secured to the frame, a lower stationary jaw mounted on the bed, an upper cutting jaw pivoted at one end between the frames and guided by the same, a cam lever ful- 50 crumed between the frames and engaging the upper jaw, and a spiral spring mounted in the support and depending from the top thereof and connected with the pivoted jaw, substantially as described. 55

3. In a metal cutting device, the combination of a bed, the vertical frames secured to opposite sides thereof and extending upward therefrom, the lower stationary bars 9 and 10 60 arranged edgewise on the bed and supported by the frames, the inner one of said bars being provided with a recess, the upper pivoted bars 13 and 14 mounted in the frames, one of these bars being recessed similar to the lower 65 bars, the upper and lower blades secured in the recesses of said bars and forming cutting jaws, a lever arranged to depress the upper jaw, and a spring for raising the same, substantially as described.

In testimony that I claim the foregoing as 70 my own I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN P. ^{his} X AUTREY.
mark

Witnesses:

W. J. PEARCE,
H. A. HALE.