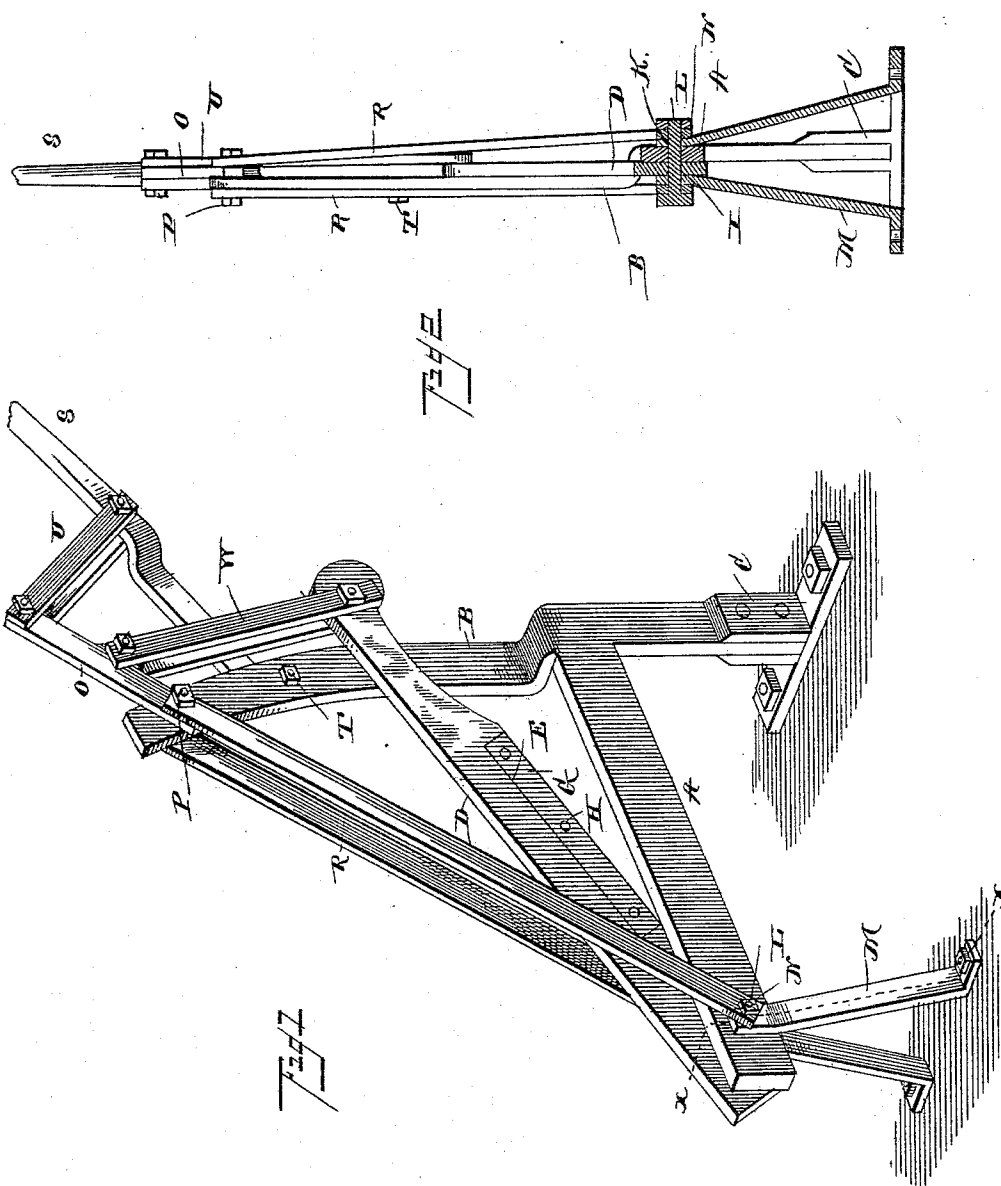


(No Model.)

J. M. BROWN.
SHEARS FOR CUTTING METAL.

No. 412,362.

Patented Oct. 8, 1889.



Witnesses

John Smith
John Warner

Inventor

James M. Brown

By *his* Attorneys

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JAMES M. BROWN, OF NEW MARKET, IOWA.

SHEARS FOR CUTTING METAL.

SPECIFICATION forming part of Letters Patent No. 412,362, dated October 8, 1889.

Application filed January 18, 1889. Serial No. 296,724. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. BROWN, a citizen of the United States, residing at New Market, in the county of Taylor and State of Iowa, have invented a new and useful Improvement in Shears for Cutting Metal, of which the following is a specification.

My invention relates to an improvement in shears for cutting metal; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a shears embodying my improvement. Fig. 2 is a transverse sectional view of the same, taken on the line $x x$ of Fig. 1.

The lower jaw A of the shears is formed integrally with a vertical arm or standard B, the upper portion of which is inclined or curved slightly, as shown, and is offset and thereby arranged in a different vertical plane from the jaw A. Bolted to opposite sides of the lower end of arm B are a pair of right-angled plates or supporting-feet C. The upper jaw D is provided on its inner side at its lower edge with a longitudinal recess E, in which is fitted a blade or cutting-jaw G, the same being secured in place by bolts H. At a suitable distance from the outer end of the jaw D is an opening I, which registers with a similar opening K in the jaw A. A bolt L is inserted in said opening and serves to pivot the jaw D to the jaw A, as will be readily understood.

M represents a pair of legs or standards which have their upper ends provided with openings engaged by the bolt L, and nuts N are screwed on the said bolt and serve to clamp the legs or standards firmly on opposite sides of the jaws A and D, and also clamp the latter together to keep their opposing surfaces in contact, and thereby causing the said jaws to be self-sharpening. By reason of the openings I K being at a distance from the outer ends of the jaws A D a firm bearing is secured between the said jaws, and the jaw D is thereby prevented from work-

ing loose laterally, and consequently the shears are adapted to cut metal with maximum efficiency.

To the upper end of the standard or arm B is pivoted a link-lever O by means of a bolt P. On the ends of the said bolt are secured the upper ends of a pair of brace-bars R, the lower ends of which are secured on the ends of the bolt L.

S represents a hand-lever of suitable length, the inner end of which is offset and pivoted to the outer side of the standard or arm B by means of a bolt T.

U represents a pair of links, which are pivotally connected to the lever S and to the outer end of the link-lever O, and a pair of similar links W are pivoted at their upper ends to the link-lever O at about midway the length of the latter and have their lower ends pivotally connected to the inner end of the jaw D. By this arrangement of the links and levers the leverage obtained on the movable jaw is so great that the shears are adapted to cut cold plow-steel.

The shears thus constructed is extremely cheap and simple, is very strong and durable, and will be found thoroughly efficient and reliable in operation.

Having thus described my invention, I claim—

The combination of the rigid jaw having the standard B formed integral with one end, the movable jaw pivoted to the rigid jaw, the braces R, extending from the standard to the pivot of the movable jaw, the link-lever O, pivoted to the standard, the operating-lever pivoted to the standard below the lever O, the links U, connecting the lever O with the operating-lever, and the links W, connecting the lever O with the movable jaw, as set forth.

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

JAMES M. BROWN.

Witnesses:

A. L. MORFORD,
U. S. RAYNOR.