

(No Model.)

W. H. TYDEMAN.

MACHINE FOR PUNCHING AND SHEARING METAL.

No. 316,420.

Patented Apr. 21, 1885.

Fig. 1.

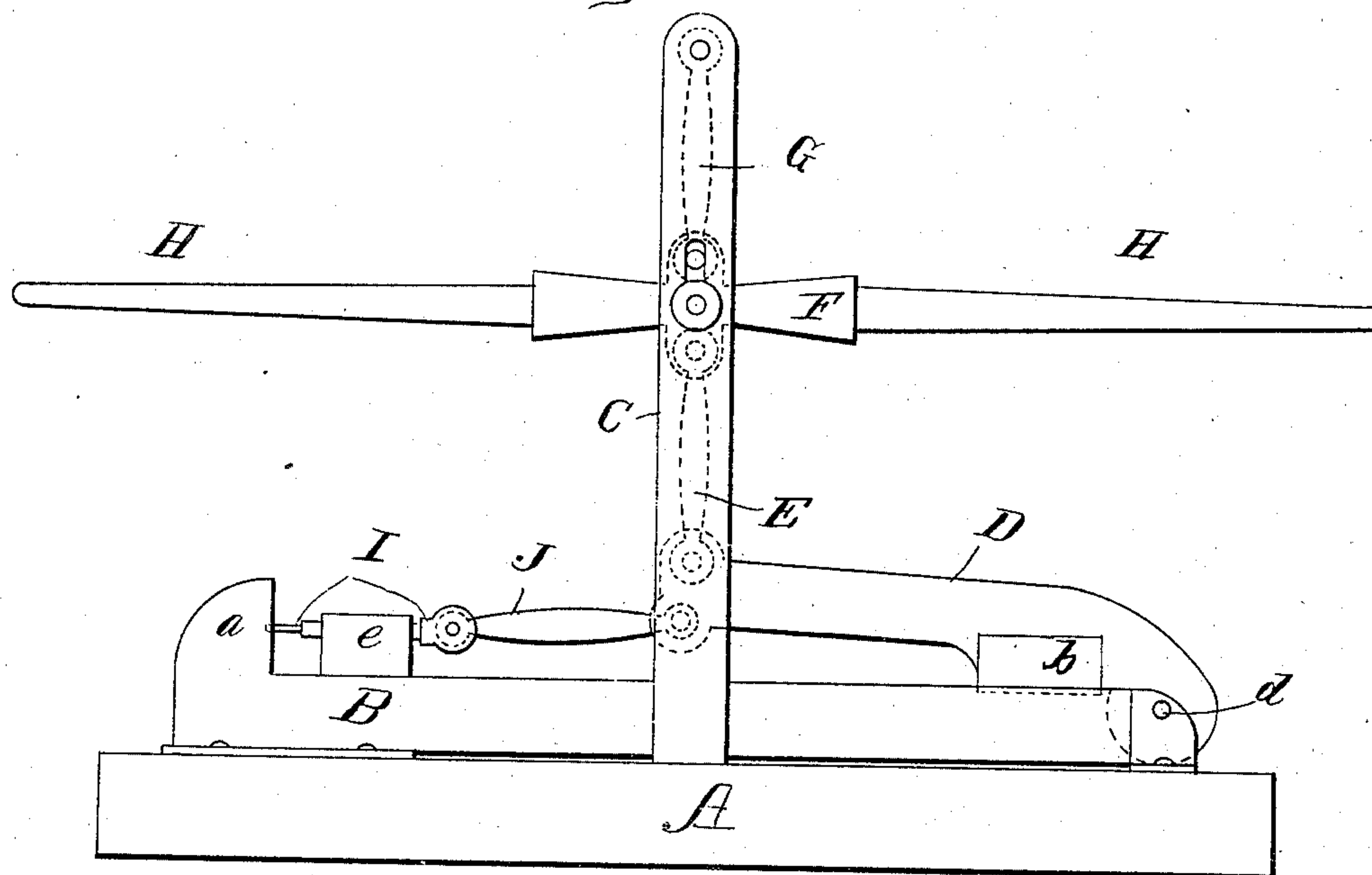
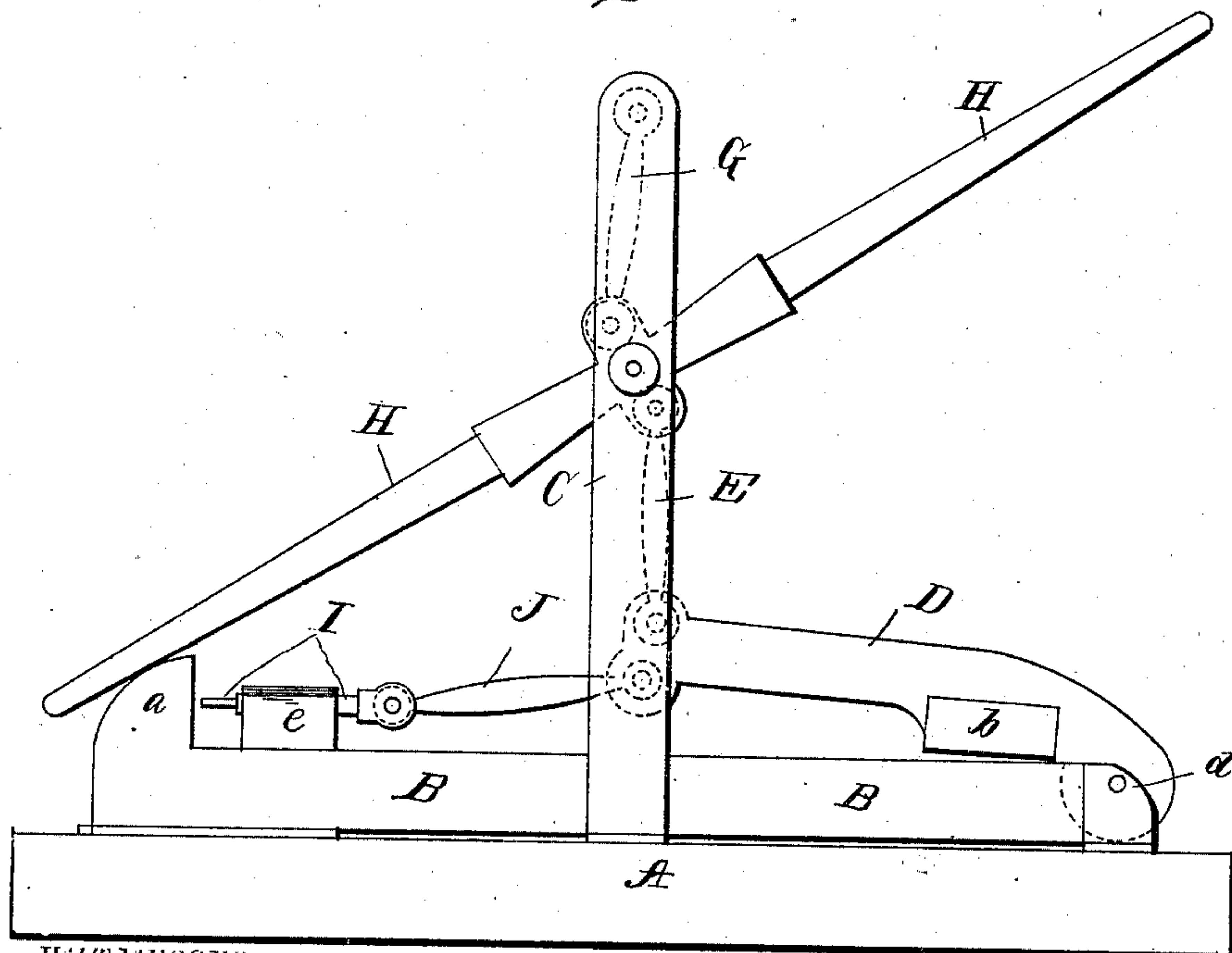


Fig. 2.



WITNESSES

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WILLIAM H. TYDEMAN, OF EARLVILLE, ASSIGNOR OF ONE-HALF TO JACOB REIFF, OF AURORA, ILLINOIS.

MACHINE FOR PUNCHING AND SHEARING METAL.

SPECIFICATION forming part of Letters Patent No. 316,420, dated April 21, 1885.

Application filed April 4, 1884. (No model.)

To all whom it may concern:

Be known that I, WILLIAM H. TYDEMAN, a citizen of the United States of America, residing at Earlville, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Punching and Shearing, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to improvements in combined metal shears and punches, its object being to secure increased leverage and do effective work.

15 The invention consists of the detailed construction and combination of parts, substantially as hereinafter fully set forth, and pointed out in the claim.

20 In the accompanying drawings, Figure 1 is a side view of my invention out of action. Fig. 2 is a similar view, the same in action.

25 In the organization of my invention I employ a suitable narrow base-frame, A, upon which is mounted and bolted the bed B, having an upright work-rest, *a*, for the punch, said rest being made preferably integrally with the bed. About centrally of the base-frame A are secured parallel upright pieces C.

30 D is the shear-lever carrying the blade *b*, with its cutting-edge presented to and resting upon a suitable surface of the bed B, said lever being pivoted at its downwardly extended or curved end, at *d*, to one end of the bed, while to its other end, at the upper side, is connected or pivoted a link, E, in turn connected or pivoted to the pendent arm of a cruciform lever-socket, F, centrally pivoted between the uprights C, its fulcrum or pivot bearing in the latter.

35 To the upwardly-projecting arm of the lever-socket F is connected or pivoted a link, G, with its upper end pivoted between the uprights C, its fulcrum or pivot bearing in the upper ends of said uprights.

In each of the two normally-horizontal sockets of the lever-socket F is or may be inserted a hand-lever, H, for operating the shear, together with the punch, next described. 45

I is the punch, with its shank resting in a passage in a support, *e*, secured upon the bed contiguously to the work-rest *a*, to the rear end of which punch is jointed or pivoted one end of link J, having its opposite end pivoted or connected to the lower side of the inner end of the shear-lever D. 50

It will be seen from the foregoing, as shown in the two figures, that the action of the shear and punch is synchronous, thereby increasing or doubling the working capacity of the machine, and that a powerful leverage or action is capable of being exerted upon both the shear and punch. 55 60

If desired, one of the normally-horizontal socket-arms of the lever-socket F may be provided with a jointed lever to adapt it for connection to machinery for operation from that source. 65

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

The shear-lever and punch in combination, the former being pivoted at one end to its support and at its other end, upon the upper side, to a link connected to the pendent arm of a lever-socket, said socket having its upwardly-projecting arm connected to a link depending between supports, and said punch being connected to a link pivoted to the lower side of one end of the shear-lever, substantially as and for the purpose set forth. 70 75

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. TYDEMAN.

Witnesses:

JAMES D. FAMATTER,
CHAS. B. VOSBURGH.