

H. A. Bartlett,
Connecting Sheet-Metal Strips.
N^o 68,547.
Patented Sep. 3, 1867.

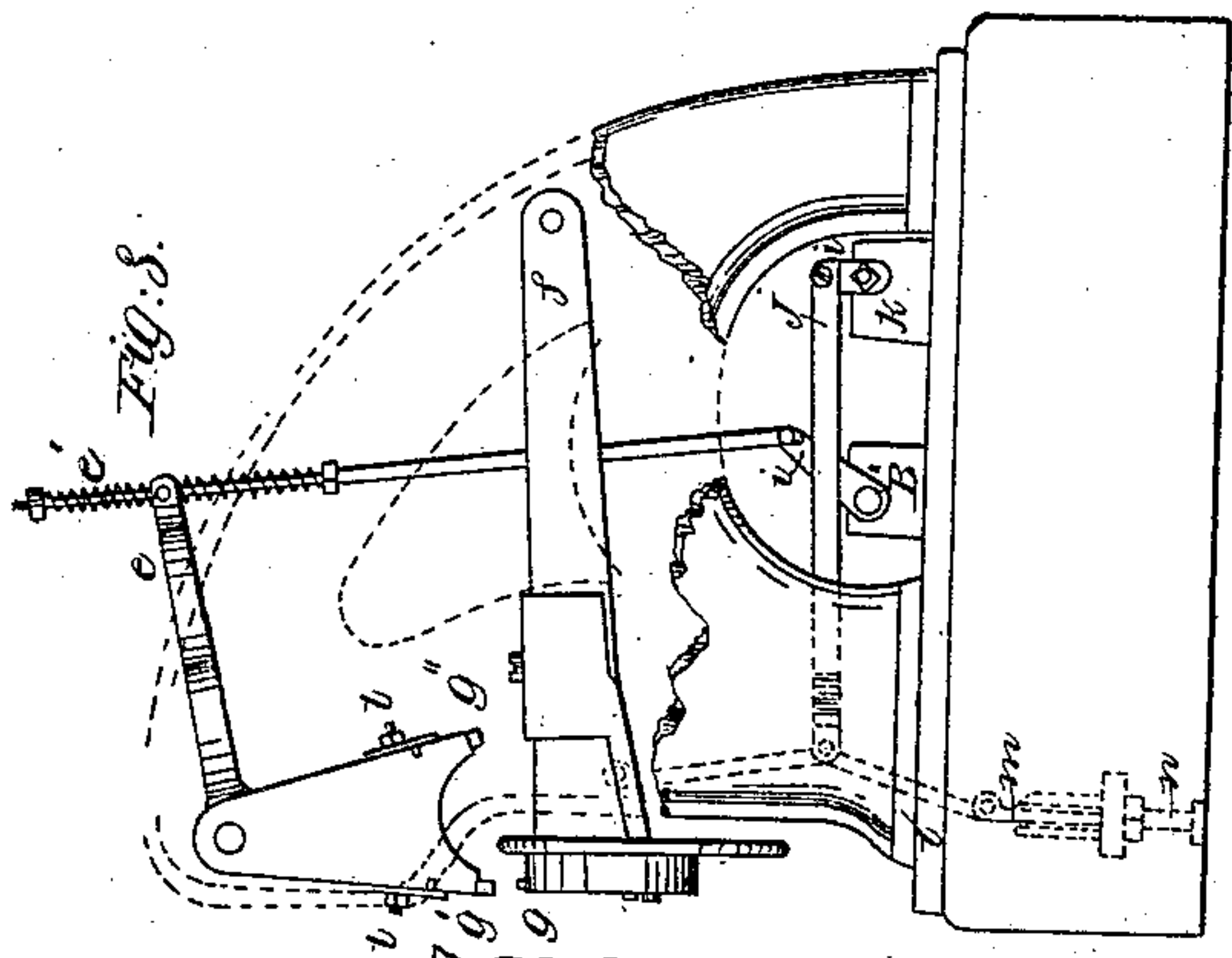


Fig. 2.

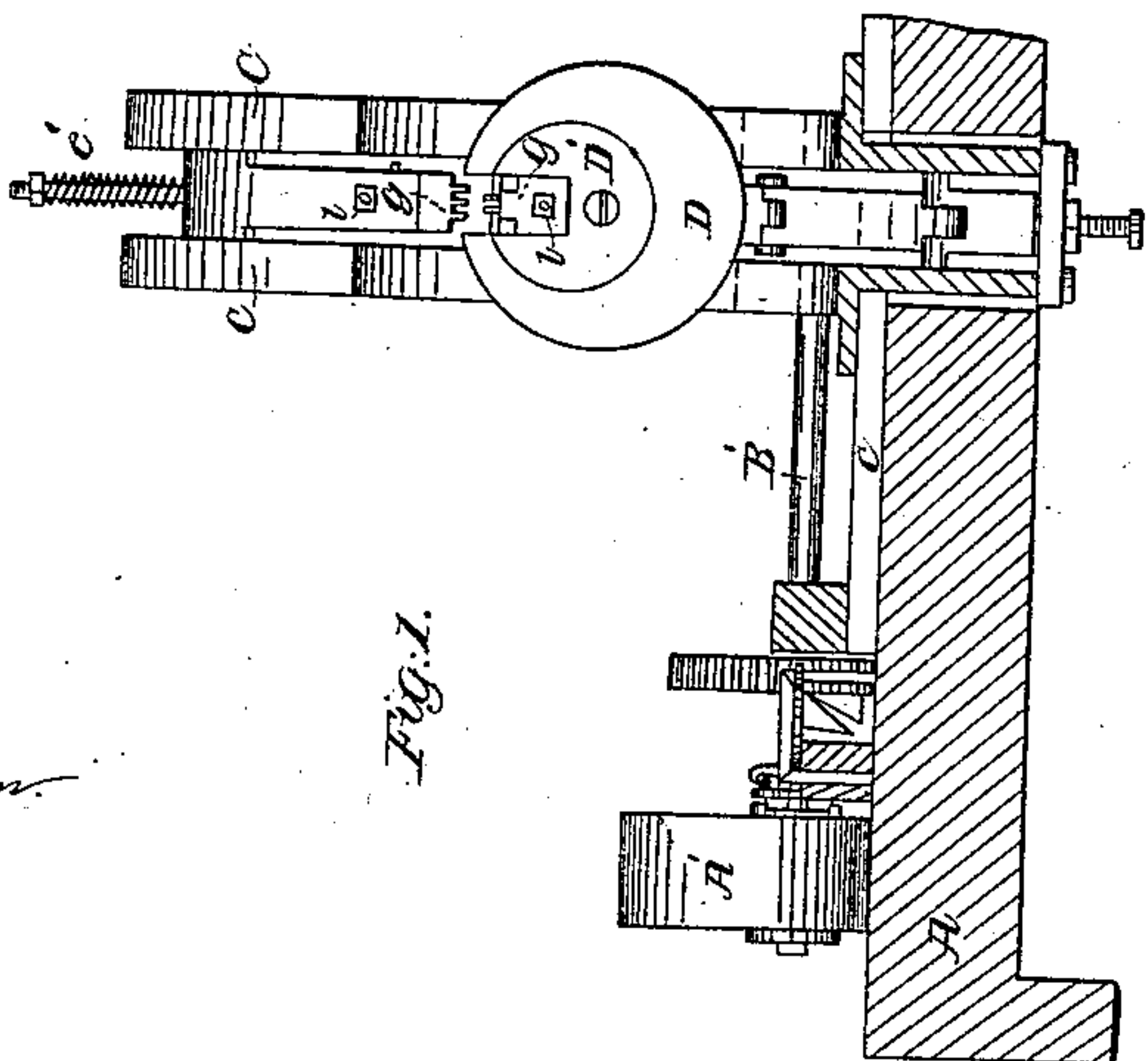
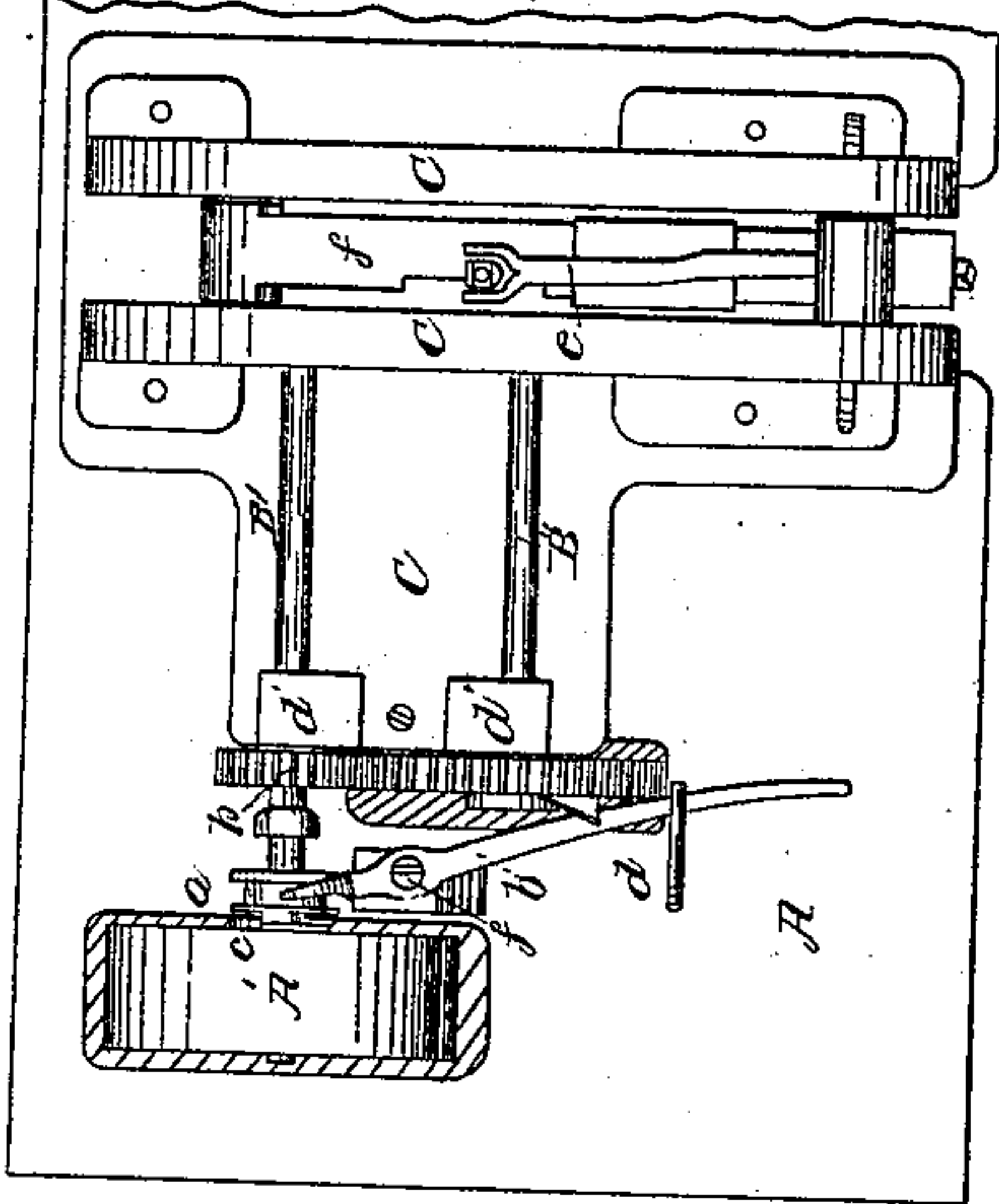


Fig. 1.

Witnesses:
V. C. Clayton.
George Ellis.

Inventor:
H. A. Bartlett.
by atty
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United States Patent Office.

HENRY A. BARTLETT, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 68,547, dated September 3, 1867.

IMPROVEMENT IN MACHINE FOR CONNECTING STRIPS OF METALS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY A. BARTLETT, of Philadelphia, in the county of Philadelphia, and in the State of Pennsylvania, have invented a new and useful Machine for Connecting Strips of Metal for boxes and other purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of the invention.

Figure 2 is a plan view of the same; and

Figure 3 is a vertical section with one side of the frame removed.

The nature of my invention consists of a device of mechanical means for riveting together the ends of thin metal strips for forming metal boxes by pressure, as hereinafter described.

To enable others to make and use my invention, I will proceed to describe its construction and operation for the use of those skilled in the art.

In the construction of my invention I form a base or foundation of wood, A, on which is placed a metal frame, C C C, to which are attached the mechanical devices composing the operating parts of my invention, in which D and D' are the former, seen in fig. 1; g, the lower punches; g' g'', the upper punches; e, the swinging arm or lever, to the lower ends of which are attached the upper punches g' g''; f, the lever to which the former D is secured, and which former is detachable when desired to use one of different size; e' is a connecting-rod, with spiral springs, attached above and below lever e, which lever e is attached by a sliding collar, as seen in fig. 2, to the said rod, which rod is also attached to lever i as a crank on the end of shaft B''. On said shaft is a gear-wheel, p', which gears into a driving-wheel, p, on shaft B'. On said shaft B' is a sliding-clutch attached to and operated by lever b, for placing the machine in gear and throwing it out of gear. The inner end of the hub of the driving or belt-wheel has portions of its sides cut away to allow clutch a to catch in it. The fulcrum of lever b is seen at b', fig. 2, and is kept in place by staple d, fig. 2. d' d' are the bearings of the shafts B' and B''. The punches or dies g and g' and g'' are easily attached and detached, when required so to do, by the screws z'. A' is a hand-wheel for applying the power.

In the operation of my invention the power is applied by a band or otherwise to band-wheel A', and the operator places the strip of metal on the former D', with the ends lapped directly over the dies g or punches, where it is steadily held by the same; the clutch is then thrown in gear, and motion is given to the machine; operating the dies or punches by means of the various levers, causing the punch or die g to move up and the dies g' and g'' to move down on the metal, alternately punching the metal and pushing it through, but not cutting it out, only at the sides, and the two dies or punches are made to press together, hard enough to flatten the same and rivet the ends of the metal together, with one motion of the machine, by direct pressure, instead of a roller or a hammer, by a blow, thus forming the sides of a metal box. From the shape of lever e it is caused to move at the end, when the dies g' and g'' are fastened, so as to bring said dies alternately in contact with the die g. The dies can be regulated in or out by means of the screws, or removed and replaced in the same manner. When the piece of metal has been punched and riveted the lever b is operated on by the cam t on wheel p', thus throwing the clutch out of gear and stopping the machine until another piece is placed on the former D', when the operation is repeated as already described. The former can be easily removed in or out by means of a slot and screw, s, in fig. 3, or readily detached if required. It will be seen that the dies or punches pass into or past each other, thus cutting and pressing the indentation of the under part cut of the strip into the upper end of the strip, when they are riveted together, as already described.

Having thus described the construction and operation of my invention, I am aware that the indentations of themselves are not new, as metal strips have been before indented and riveted together by rollers, and by a blow with a hammer; therefore I do not claim a machine for simply indenting the strips and passing them through or into each other; but what I do claim as new and my invention, and desire to secure by Letters Patent, is—

1. I claim the former D and D', dies g, g', and g'', when constructed and operating substantially in the manner and for the purposes set forth.

2. I claim the combination of the clutch, as described, with the former D', by means of levers e, e', f, o, i, i', j', l, and m, the whole operating substantially as described, and for the purposes set forth.

In testimony that I claim the above-described invention I have hereunto signed my name this thirty-first day of July, 1866.

H. A. BARTLETT.

Witnesses:

T. HERBERT ONYX,

JO. C. CLAYTON.