

C.D. Hunt,

Making Cut Nails,

N^o 84,189-

Patented Nov. 17, 1868.

Fig. 1.

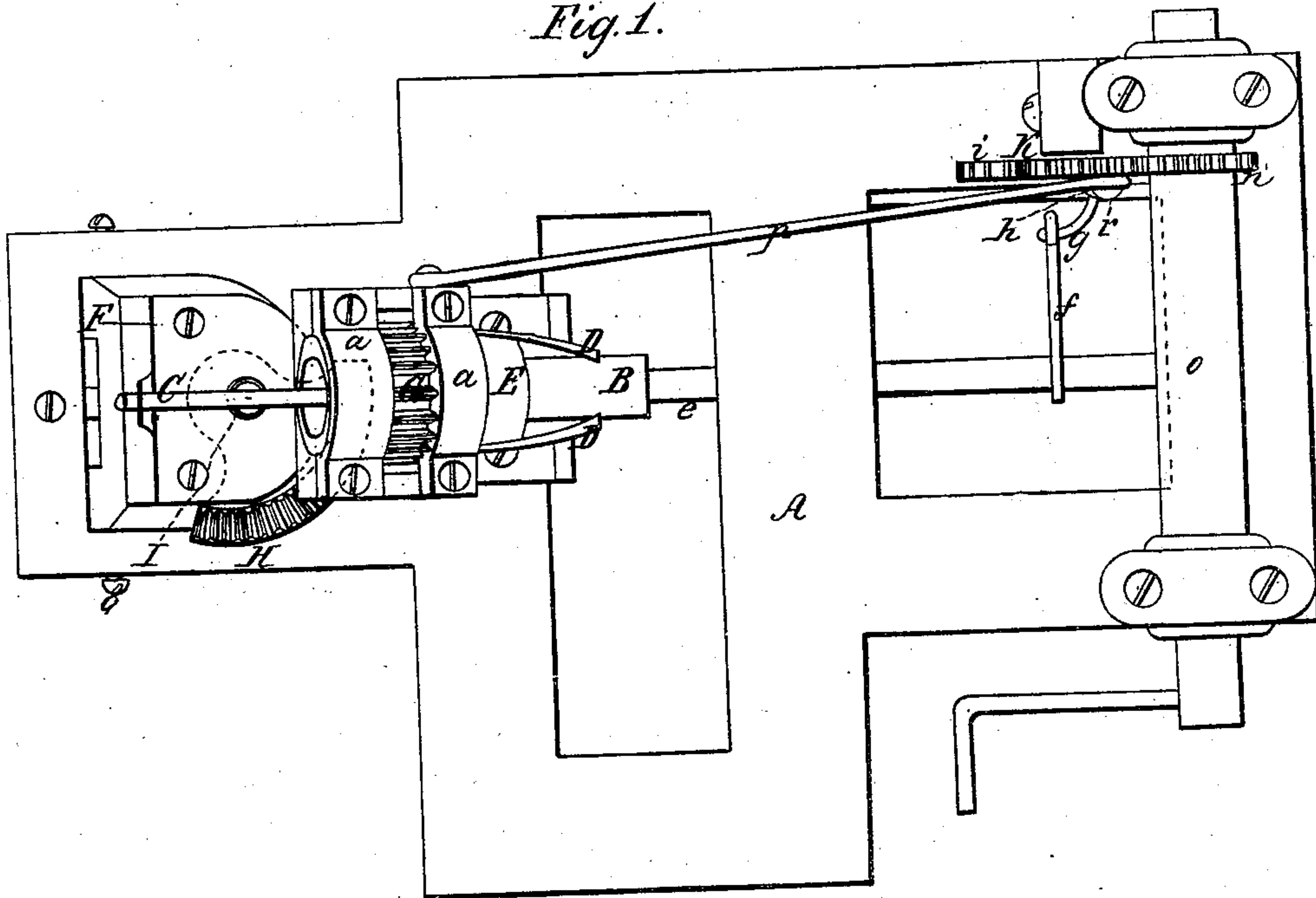
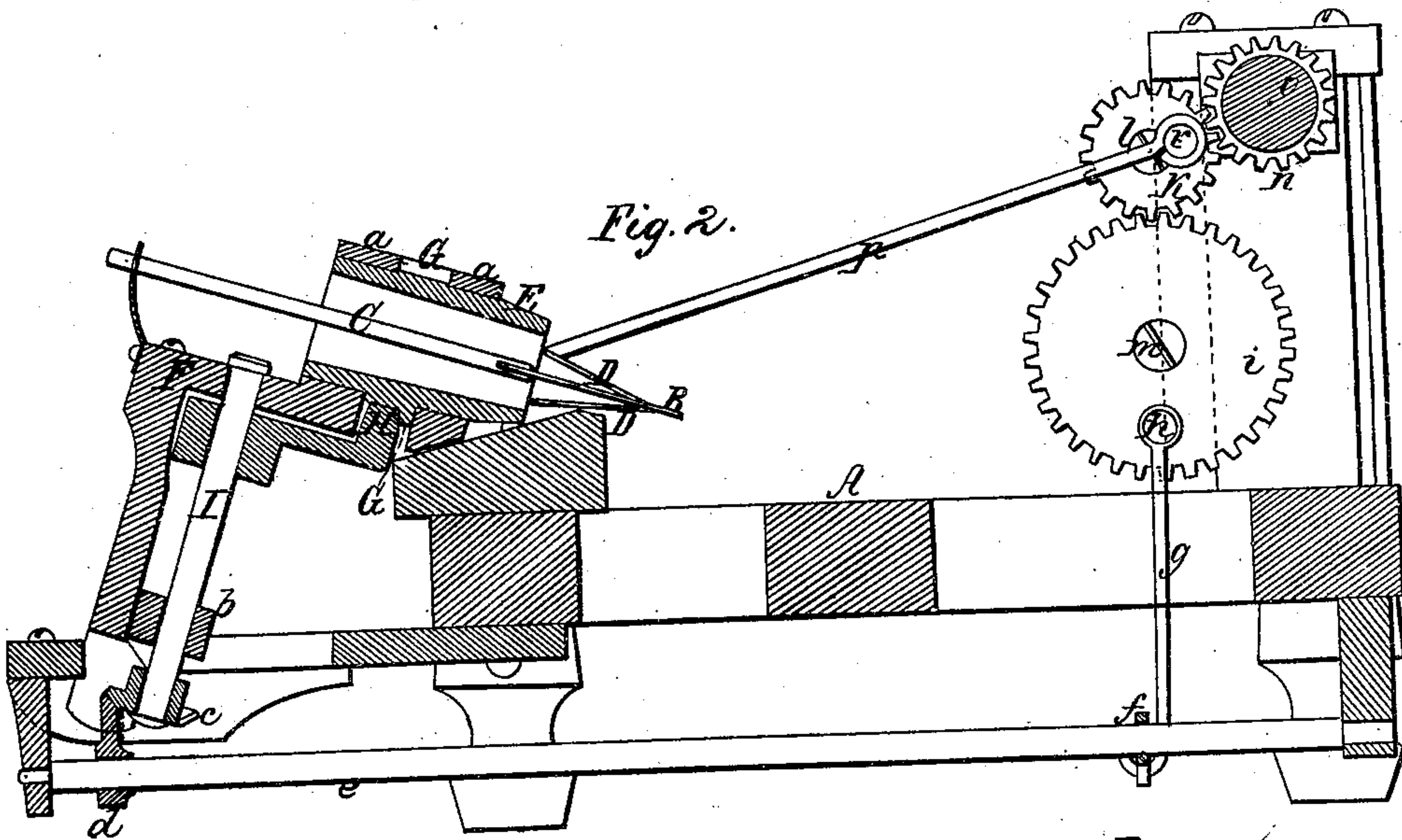


Fig. 2.



Witnesses;
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Inventor;
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By his attorney.
R. H. Eddy

United States Patent Office.

CYRUS D. HUNT, OF FAIRHAVEN, MASSACHUSETTS.

Letters Patent No. 84,189, dated November 17, 1868.

IMPROVED NAIL-CUTTING-MACHINE.

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

To all persons to whom these presents may come:

Be it known that I, CYRUS D. HUNT, of Fairhaven, in the county of Bristol, and State of Massachusetts, have invented a new and useful Improvement in Nail-Cutting Machines; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and

Figure 2, a vertical and longitudinal section of my improved mechanism.

In such drawings, A may be supposed to represent a part of the frame of a nail-cutting machine.

The strip B of nail-plate, from which the nails are to be cut, is required to have an intermittent advance movement, and to be revolved, with a reciprocating motion, through an arc of a circle of one hundred and eighty degrees, each semi-rotation of the plate being preparatory to each advance of it.

The purpose of my present improvement is to effect the reciprocating semi-rotative movements of the nail-plate carrier, as well as the vibratory motions of the arm by which it is sustained, the nail-plate being advanced to the dies during each semi-rotary movement of it. As the mechanism for so advancing the plate constitutes no part of my present invention, I have made no description or representation of it.

At its rear end, the strip B is to be connected to or held in connection with a rod, C, and is to be supported within, and by two grooved guides, D D, extending from a tubular shaft, E. The said shaft E, sustained in bearings or boxes *a a*, supported by a bent or right-angular vibratory arm, F, has a gear or range of teeth, G, extended about it concentrically. This gear engages with a toothed sector, H, fixed to a shaft, I, arranged in bearings, *b b*, applied to the vibratory arm.

On the lower end or part of the shaft I, is a bevelled-gear or toothed sector, *c*, which engages with another such gear or sector, *d*, fixed upon a long horizontal rocker-shaft, *e*.

The juncture of the pitch-lines of the teeth of the two sectors *c d* is to be in the axis of motion of the vibratory arm F, in order that the two sectors may be in engagement with each other during the movement of such arm.

From the rocker-shaft *e*, an arm, *f*, extends, and is jointed to the lower end of a rod, *g*, which depends from a crank-pin, *h*, extended from a gear, I, which engages with another gear, *k*. The two gears *i* and *k* revolve on stationary centres or pins, *l m*, projecting from the frame A, and the gear *k* engages with a gear, *n*, fixed on a shaft, *o*, of the machine.

A connecting-rod, *p*, pivoted to the vibratory arm F, whose centre of motion is shown at *q*, is applied to a crank-pin, *r*, projecting from the gear *k*. By means of such gear, crank-pin, and rod, the arm F, while the pin is in revolution, will be vibrated so as to move the nail-plate away from and down upon the bed-die, in order that such plate may be revolved one hundred and eighty degrees while being so moved.

The mechanism for revolving the plate or the tubular shaft E, by which its guides, D D, are supported, consists of the gear G, the toothed sector, H, the shaft I, the toothed sectors *c d*, the shaft *e*, the arm *f*, the connecting-rod *g*, the crank-pin *h*, and the gear *i*.

I claim the arrangement, as well as the combination, of the gears *i k*, their crank-pins *h r*, the connecting-rods *g p*, the arm *f*, rocker-shaft *e*, toothed sectors *c d*, shaft I, toothed sector H, and gear G, as applied to the vibratory arm F, and the tubular shaft E, the whole being for effecting the vibratory motions of the said arm, and the reciprocating semi-rotary movements of the nail-plate carrier, as set forth.

C. D. HUNT.

Witnesses:

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