

(Model.)

2 Sheets—Sheet 2.

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MACHINE FOR ATTACHING METAL CLIPS TO CARD BOARD BOXES.

No. 416,908.

Patented Dec. 10, 1889.

Fig. 7.

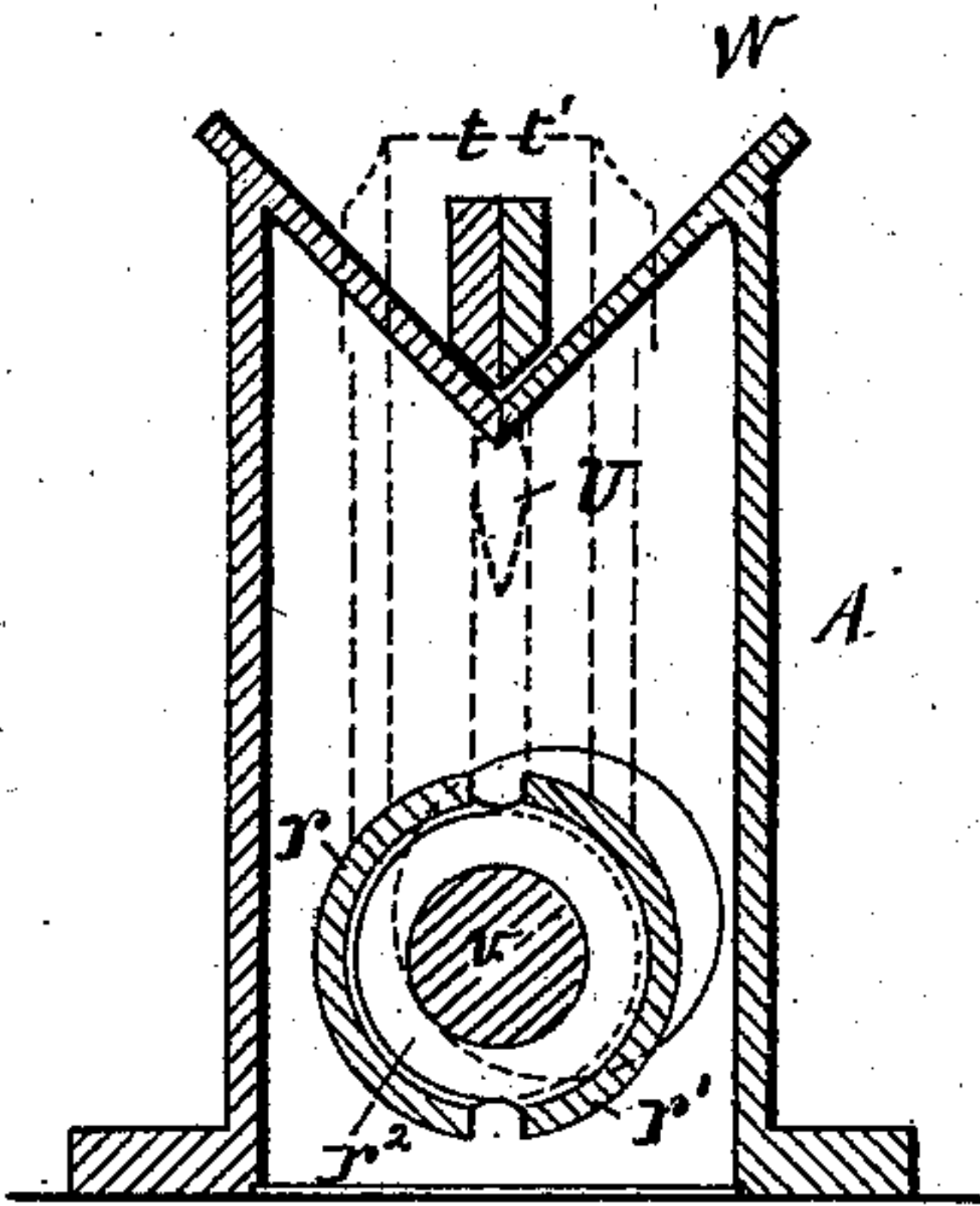


Fig. 8.

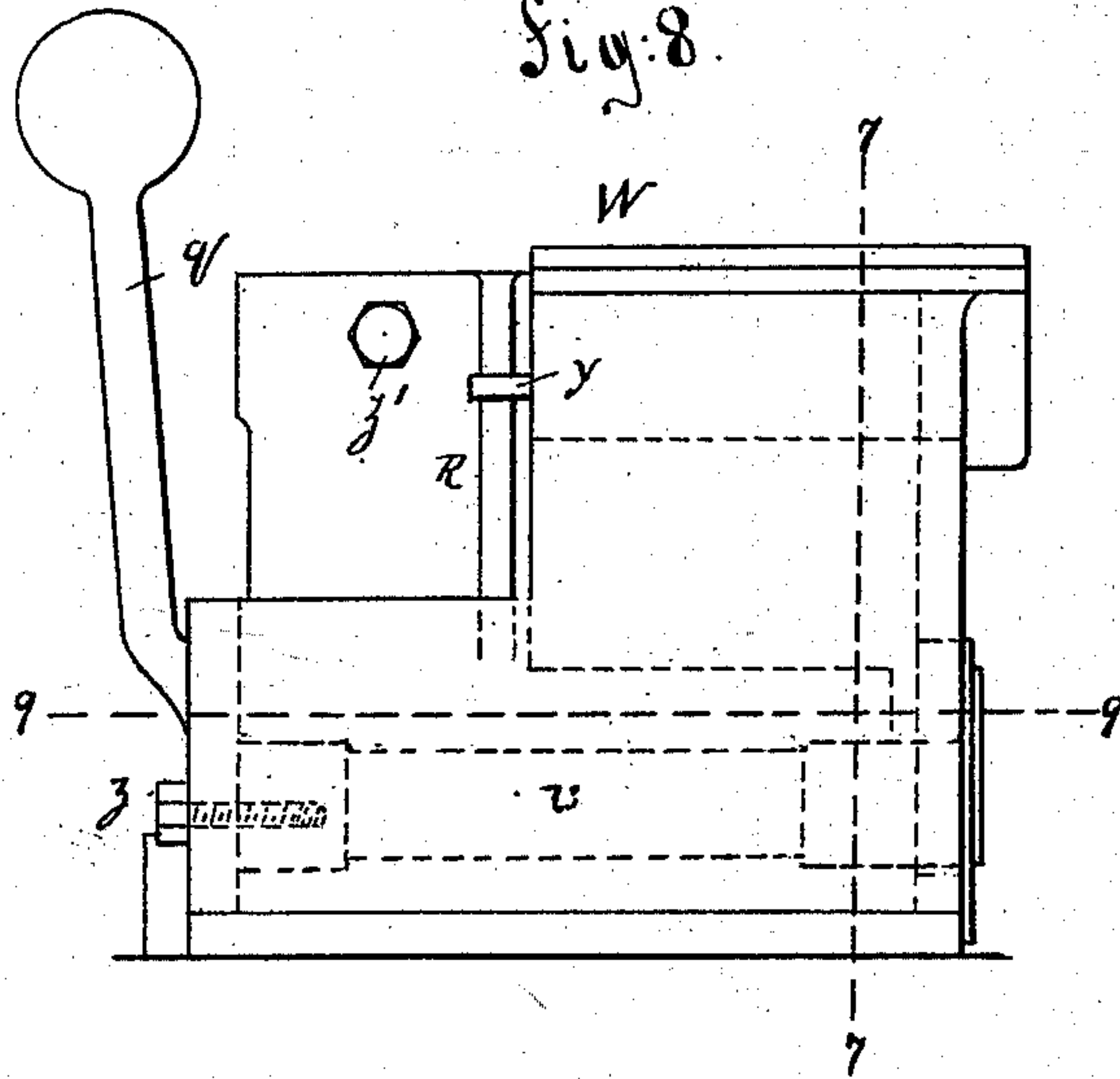


Fig. 9.

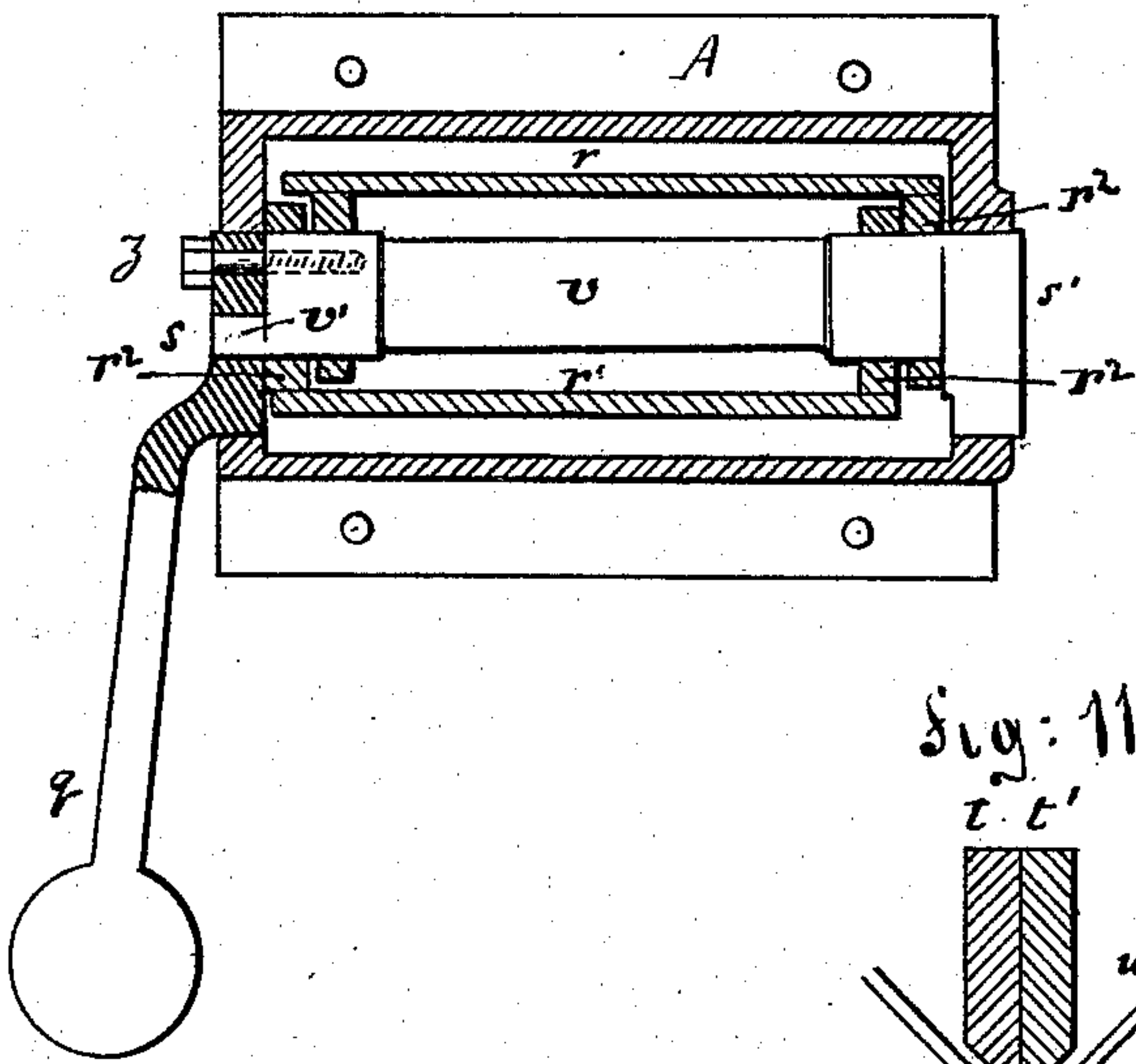


Fig. 10.

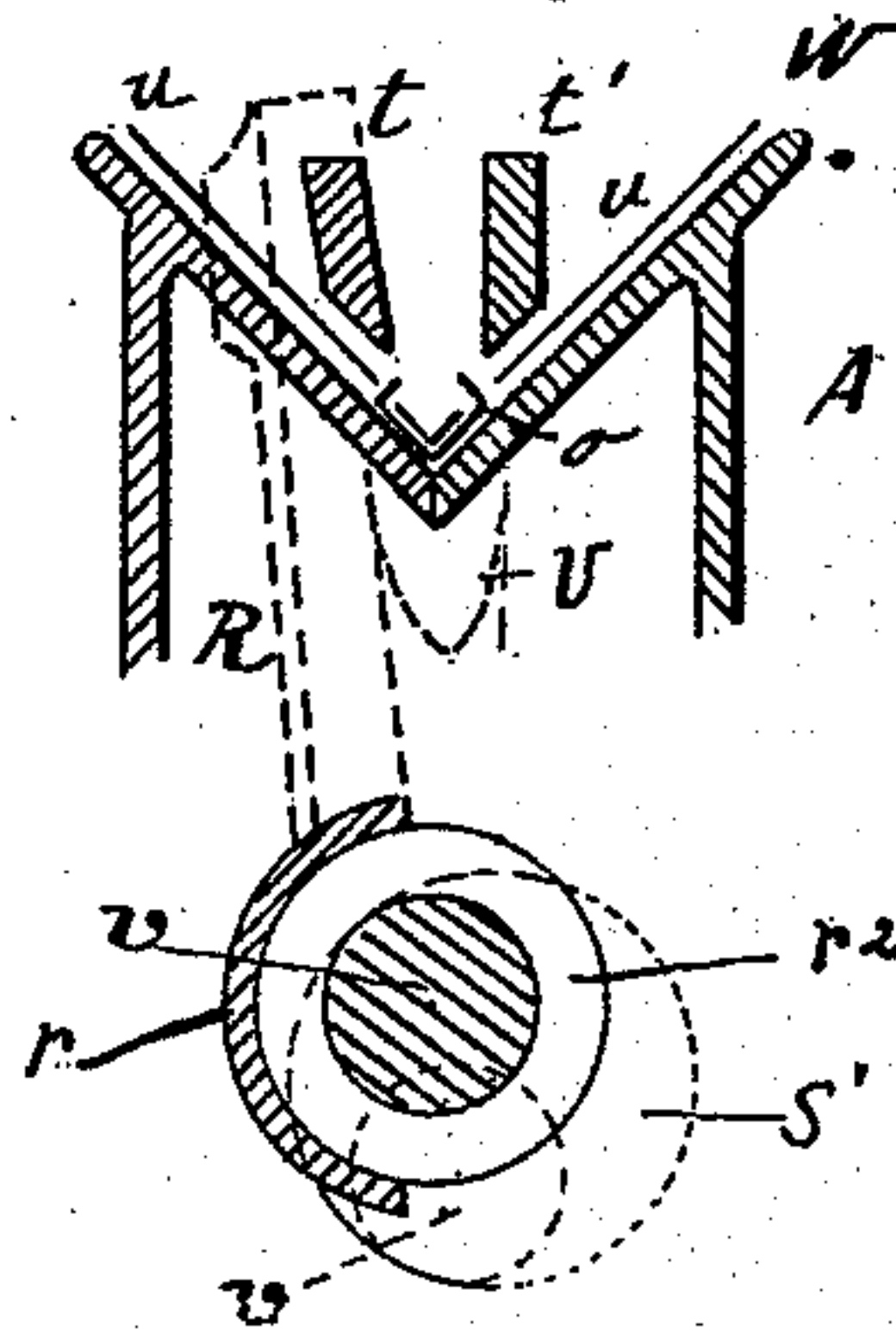
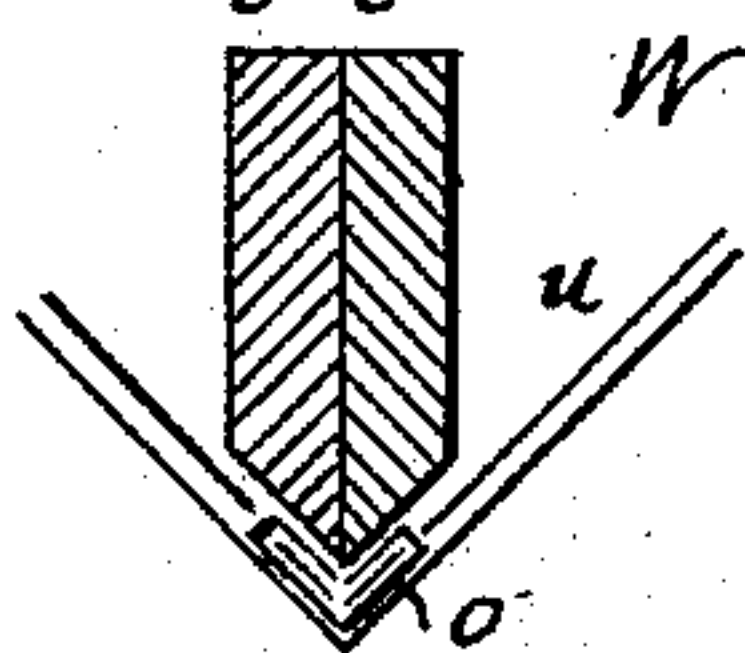


Fig. 11.



WITNESSES:

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UNITED STATES PATENT OFFICE

JACOB GEIGER, OF STUTTGART, GERMANY; JOHN A. STRALEY ADMINISTRATOR OF SAID JACOB GEIGER, DECEASED.

MACHINE FOR ATTACHING METAL CLIPS TO CARD-BOARD BOXES

SPECIFICATION forming part of Letters Patent No. 416,908, dated December 10, 1889.

Application filed June 25, 1887. Serial No. 242,436. (Model.) Patented in England January 8, 1887, No. 322, and in Germany June 8, 1887, No. 39,528.

To all whom it may concern:

Be it known that I, JACOB GEIGER, of Stuttgart, in the Empire of Germany, have invented certain new and useful Improvements in Machines for Attaching Metal Clips to Card-Board Boxes, (for which I have obtained Letters Patent in Germany, No. 39,528, dated June 8, 1887, and in Great Britain, No. 322, dated January 8, 1887,) of which the following is a specification.

The object of my invention is to provide a new and improved machine for fastening toothed metal clips on the corners of card-board, pasteboard, and the like boxes, for the purpose of holding the sides of the boxes together.

In the accompanying drawings, Figure 1 is a plan view of the card-board blank used in making the box. Fig. 2 is a perspective view of the box. Fig. 3 is a face view of the metal clip. Fig. 4 is a similar view of the same bent. Fig. 5 is a face view of another shape of the clip. Fig. 6 is an end view of my improved machine for fastening metal clips on the corners of boxes, the jaws being lowered and closed. Fig. 7 is a cross-sectional view on line 7 7 of Fig. 8, the jaws being lowered and closed. Fig. 8 is a side view. Fig. 9 is a horizontal sectional view on line 9 9 of Fig. 8. Fig. 10 is a detail cross-sectional view of parts also on line 7 7 of Fig. 8, showing the jaws raised and a clip and sides of a box in the machine. Fig. 11 is a detail cross-sectional view of part of the machine, showing the jaws lowered and closed.

Similar letters of reference indicate corresponding parts.

The sheet-metal clips *o*, Figs. 3, 4, and 5, are provided with teeth *S*, projecting from the side edges, and said clips are bent rectangularly on the longitudinal axis. The sides of the box are provided along the edges with the slots *p*, through which the teeth of the clips can be passed, and then said teeth must be doubled over or clinched on the inside of the box, and this is accomplished by means of my improved machine.

In the bottom part of the frame *A* the shaft *v* is mounted eccentrically in the end

disks *s s'*, of which the former is provided with the weighted handle-arm *q*, said disks being mounted to turn in suitable recesses in the ends of the frame *A*. A screw *z* is passed through the disk *s* into the end of the shaft *v*, whereby said disk is connected with the shaft *v*. The shaft *v* may also be connected with the disk by a projection *v'*, which enters a hole in the center of the disk. The eccentric-shaft is surrounded by the two semi-cylindrical sections *r* and *r'*, fixed to short sleeves *r²*, loose on the shaft *b*, and provided with upwardly-projecting arms *R*, on the upper ends of which the jaws *t t'* are fixed, the lower edges of which are beveled to fit against the trough or V shaped top *W* of the frame *A*. The screws *z'* serve to hold the jaws *t t'* to the upwardly-projecting arms *R*, and the stop-pins *y y* serve to prevent the jaws *t t'* being swung too far from each other. A spring *U* is interposed between the arms *R*, as shown in Fig. 10, and serves to press the jaws *t t'* from each other.

The operation is as follows: The parts being in the position shown in Fig. 6, the jaws *t t'* are closed, and to open them the handle-lever *q* is swung down in the direction of its arrow, the disks *s s'* turning in their recesses in the end of the frame. As the disks are turned, the shaft *v* is raised and turned in such a manner as to move the arms *R R* upward, whereby the jaws *t t'* are raised and at the same time moved from each other, as shown in Fig. 10, so as to permit of placing the sides *u* of the box and the clip *o* upon the trough or V shaped top of the frame *A*. The handle-lever *q* is then swung back into the vertical position, whereby the screw *z* is moved downward and the shaft *v* is turned in such manner as to move the arms *R R* and the jaws *t t'* downward. The bottom beveled edges of the jaws *t t'* act on the prongs or teeth *S S* of the clips *o* and bend them over, as shown in Fig. 11.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a machine for fastening toothed metal clips on card-board boxes, the combination of a frame having a V-shaped top and provided

with circular recesses, oscillating disks within said recesses, a shaft connected at its opposite ends eccentrically to said disks, arms hinged to said shaft, jaws attached to said
5 arms, and means for actuating said disks.

2. In a machine for fastening toothed metal clips on card-board boxes, the combination of a frame having a V-shaped top and provided with circular recesses, oscillating disks within
10 said recesses, a shaft connected at its opposite ends eccentrically to said disks, arms

hinged to said shaft, jaws attached to said arms, a spring for spreading said arms, and means for actuating said disks.

In testimony that I claim the foregoing as
15 my invention, I have signed my name in presence of two subscribing witnesses.

JACOB GEIGER.

Witnesses:

CARL FISCHER,
F. BAKER.