

No. 863,840.

PATENTED AUG. 20, 1907.

0. FREESE.

ENVELOP CUTTING MACHINE.

APPLICATION FILED APR. 26, 1907.

2 SHEETS—SHEET 1.

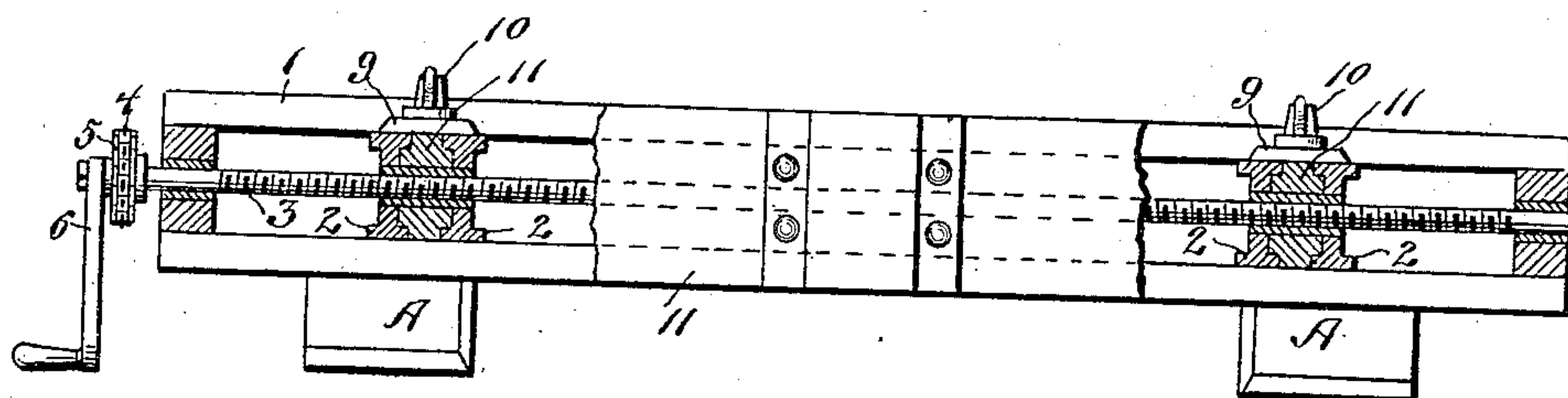
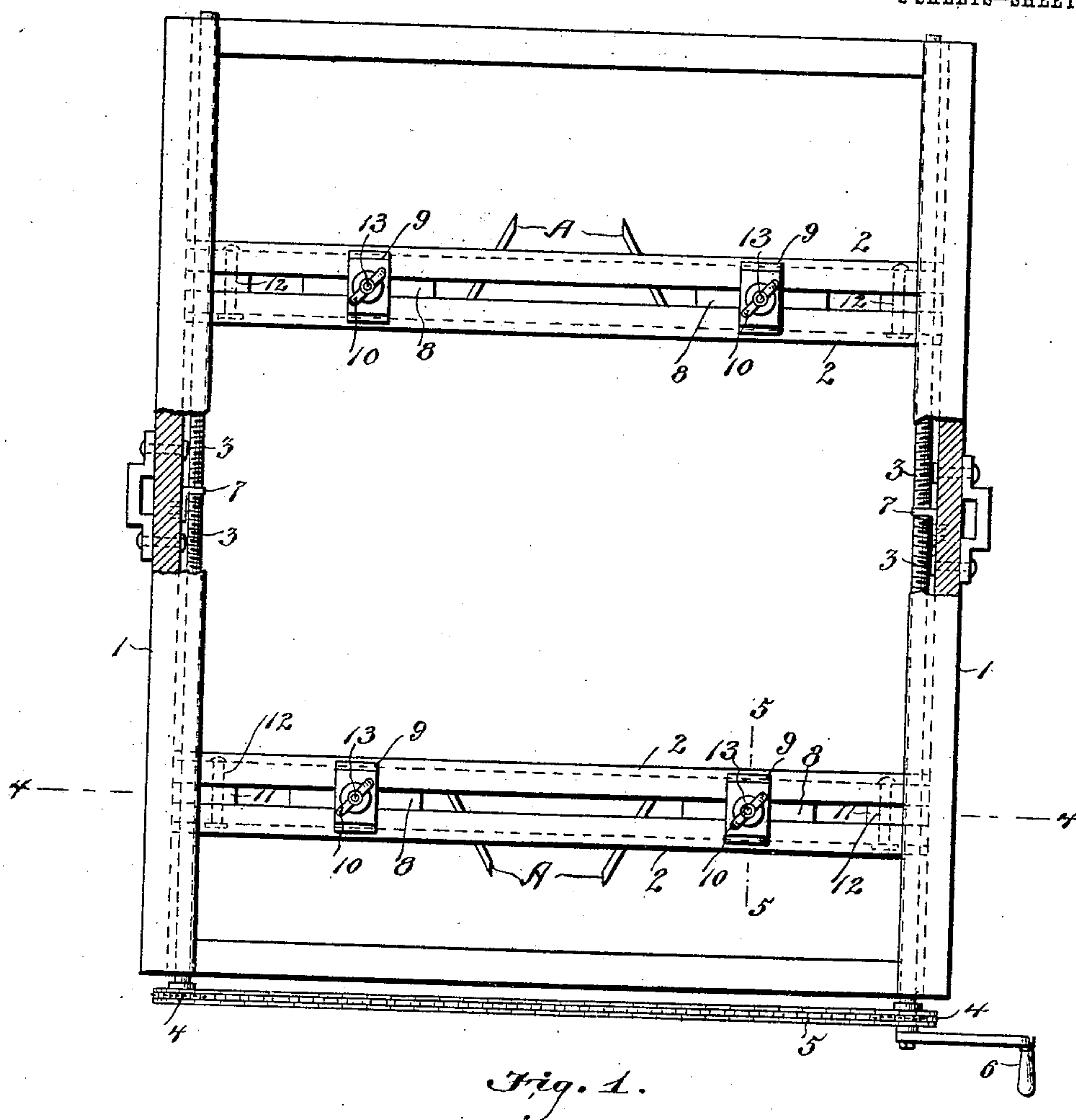


Fig. 3. Near Freeze.

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Witnesses

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2 SHEETS—SHEET 2.

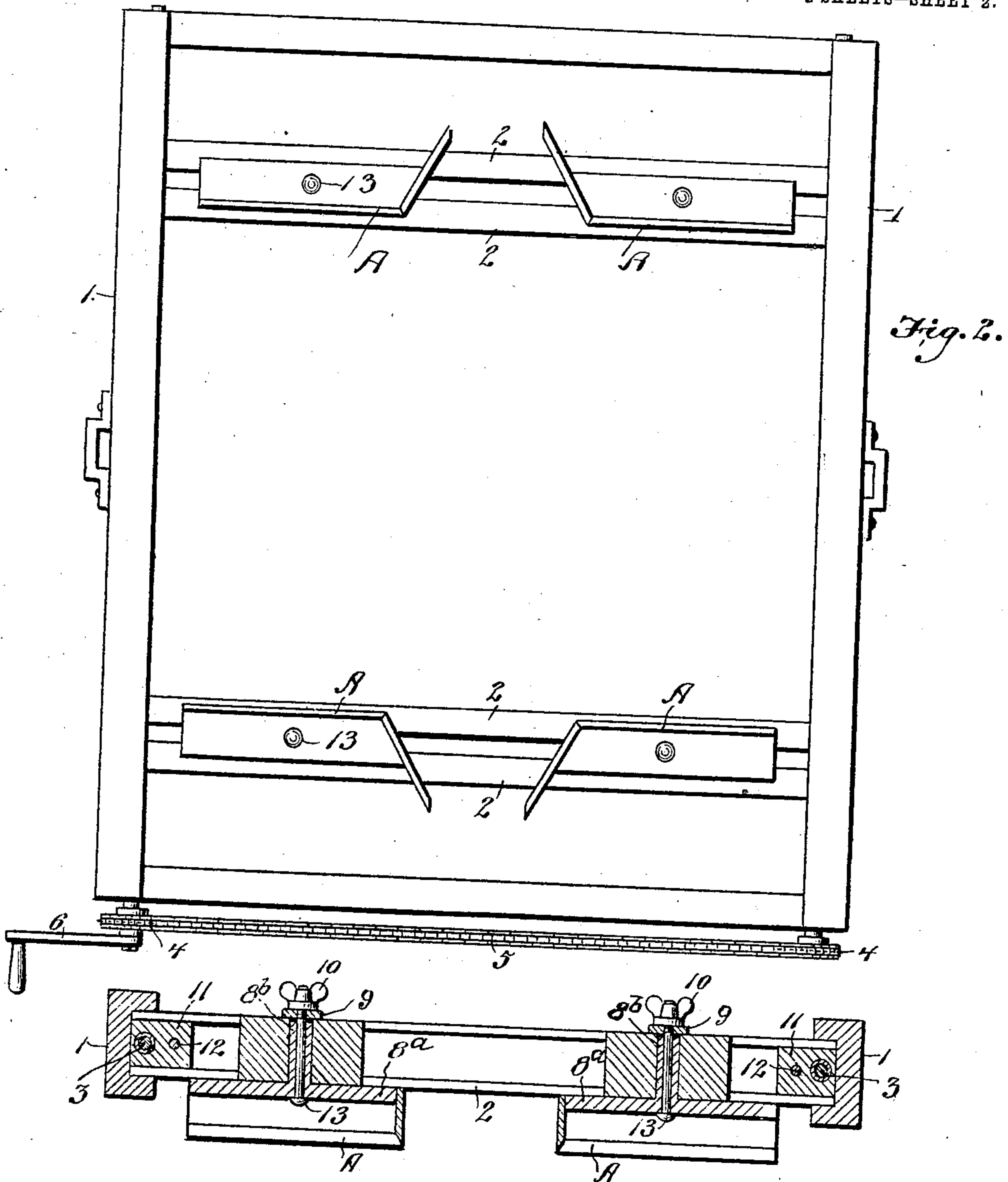


Fig. 2.

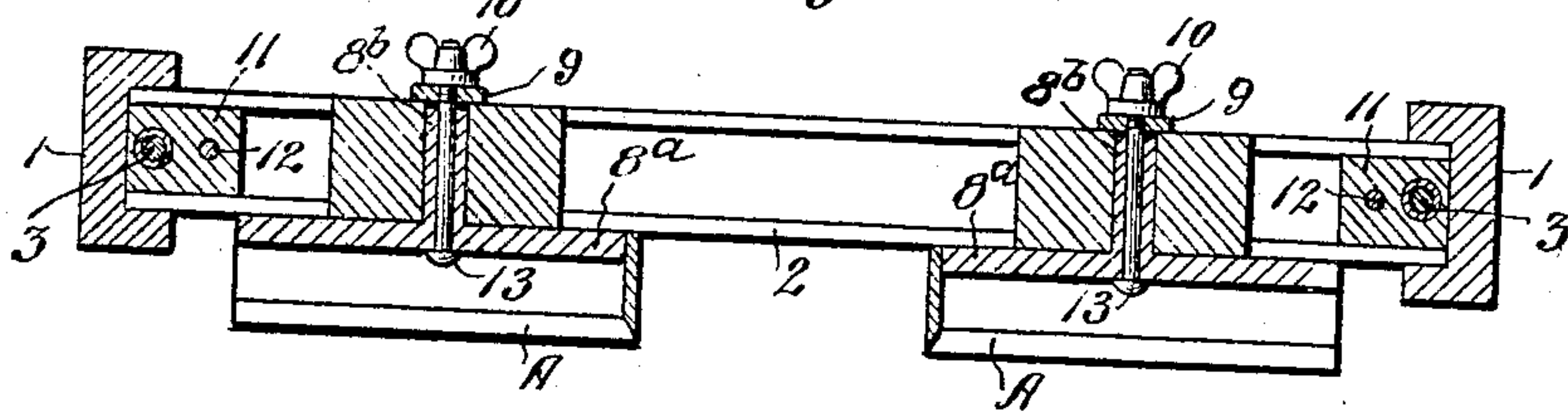


Fig. 4.

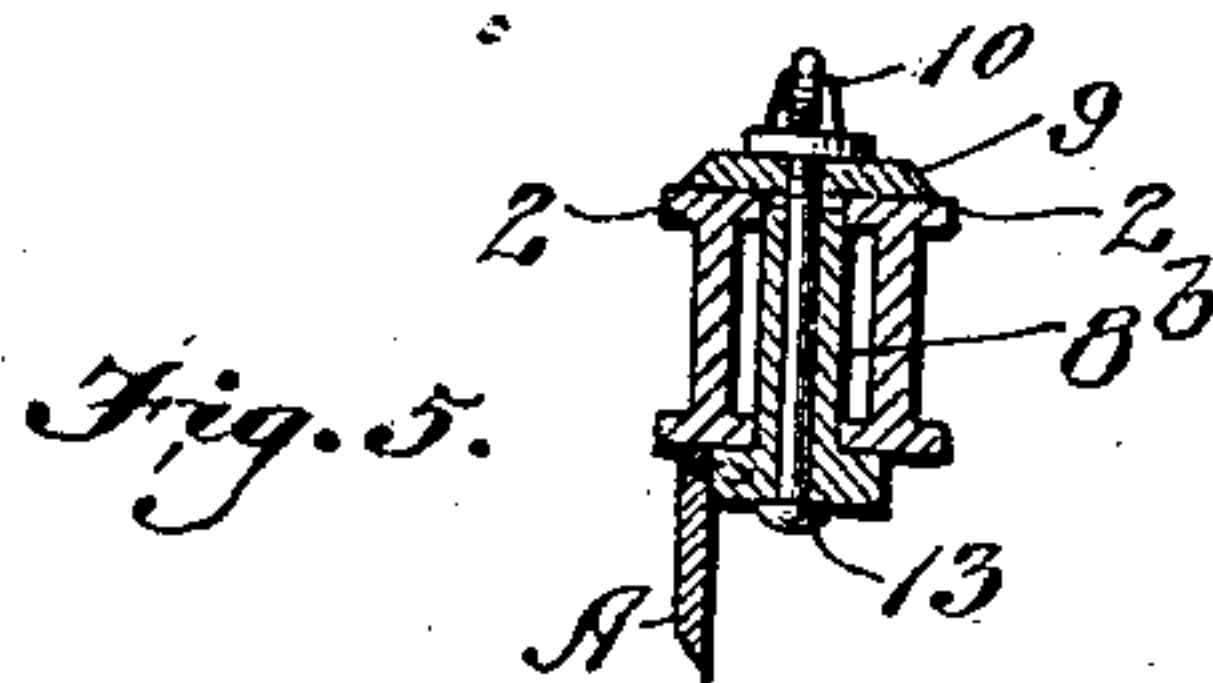


Fig. 5.

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OSCAR FREESE, OF CHICAGO, ILLINOIS.

ENVELOP-CUTTING MACHINE.

No. 863,840.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed April 26, 1907. Serial No. 370,379.

To all whom it may concern:

Be it known that I, OSCAR FREESE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Envelop-Cutting Machines, of which the following is a specification.

This invention is an adjustable head for holding the cutting knives of envelop cutting machines, and has for its object to provide a head on which the knives can be quickly and easily adjusted to accommodate all ordinary sizes of envelops.

Although particularly adapted for use in connection with envelop cutting machines, the invention is applicable to machines for cutting sheets of any kind, the invention residing in the particular manner in which the frame is made and the knives held thereon.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a top plan view of the head. Fig. 2 is an inverted plan view. Fig. 3 is a side elevation with parts in section. Fig. 4 is a section on the line 4—4 of Fig. 1. Fig. 5 is a section on the line 5—5 of Fig. 1.

Referring specifically to the drawings, 1 indicates the frame of the head, rectangular in shape, and made with channel beams or bars at the sides. Extending across this frame, from side to side, are a pair of cross bars which hold the knives, each bar consisting of two I-beams 2 placed side by side and held together and spaced apart at the ends by means of blocks 11 located between said ends, and bolts 12. This forms a slot or space between the two I-beams of each cross bar, in which slots are located blocks 8 to which the knives A are fastened, by means of plates 8^a having stems 8^b extending through the blocks. The outline or cutting edge of these knives may be made as desired, according to the design to be cut. There are usually four of the blocks, two at each cross bar. The blocks and knife plates are fastened to the beams 2 by means of bolts 13 which extend vertically through the stems 40 and are held by a clamp or washer 9 at the top and thumb nut 10 above the same. By loosening the nuts the blocks 8 can be moved along the slots between the beams 2, to any desired position, and there fastened, thus adjusting the lateral position of the knives with respect to each other. Also the stems can be turned in the blocks to vary the angles of the knives.

The ends of the I-beams 2 fit and are slidable between the flanges of the channels forming the side pieces of the frame 1, and said beams are operated by means of right and left screws 3. These screws are turned by means of a crank 6 and a chain belt 5 connecting two sprockets 4 on the ends of the screws, out-

side the frame. The screws extend through threaded bushings in the spacing blocks 11 and the I-beams 2, and when operated serve to move said beams closer together or farther apart so as to vary the distance of one pair of knives from the other pair. The screws 3 are supported at the middle by brackets 7 which fit in the groove in the screws and prevent any endwise movement thereof.

The construction shown provides or allows both lateral and longitudinal adjustment of the knives with respect to each other. The knife bars are moved and adjusted with respect to each other by turning a single crank, and any single knife can be set or adjusted by manipulation of one bolt. At the same time, the knives are firmly supported and will not yield or vibrate. These heads are used in envelop cutting machines and are raised and lowered by power provided for the purpose, but inasmuch as the present invention relates to the construction of the head no particular description of the means for operating the same is considered necessary.

I claim:

1. A cutter head comprising an outer frame, parallel knife bars extending across within the same and adjustable toward or from each other, and knives fastened to the bars and adjustable along the same, toward or from each other.

2. A cutter head comprising an outer frame having right and left screws at the sides thereof, and knife bars which extend across the frame and travel at their ends on the screws, whereby the bars may be adjusted toward or from each other.

3. A cutter head comprising a frame, knife bars extending across the same and having longitudinal slots or recesses, knife blocks adjustable along in the slots, and means to fix the blocks at adjustment.

4. In a cutter frame, a knife bar formed of two spaced angle beams extending side by side and having spacing blocks therebetween at the ends, and blocks to which the knives are attached, located between said beams and slidable therebetween, and clamps to hold the blocks as set.

5. A cutter head comprising a frame having channel beams at the sides, knife bars extending across the frame and fitting at the ends in said channels, and right and left screws extending through the ends of the bars, at each side, and adapted to shift the bars toward or from each other.

6. A cutter head comprising a frame, knife bars extending across the same, right and left screws at each side of the frame, engaging the ends of the bars to draw said bars toward or from each other, and gearing between the screws on opposite sides, to cause their simultaneous operation.

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

OSCAR FREESE.

Witnesses:

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H. G. BATCHELOR.