

No. 777,038.

PATENTED DEC. 6, 1904.

F. M. LINDERMAN.  
BELT CUTTER AND SQUARE.  
APPLICATION FILED MAR. 28, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1

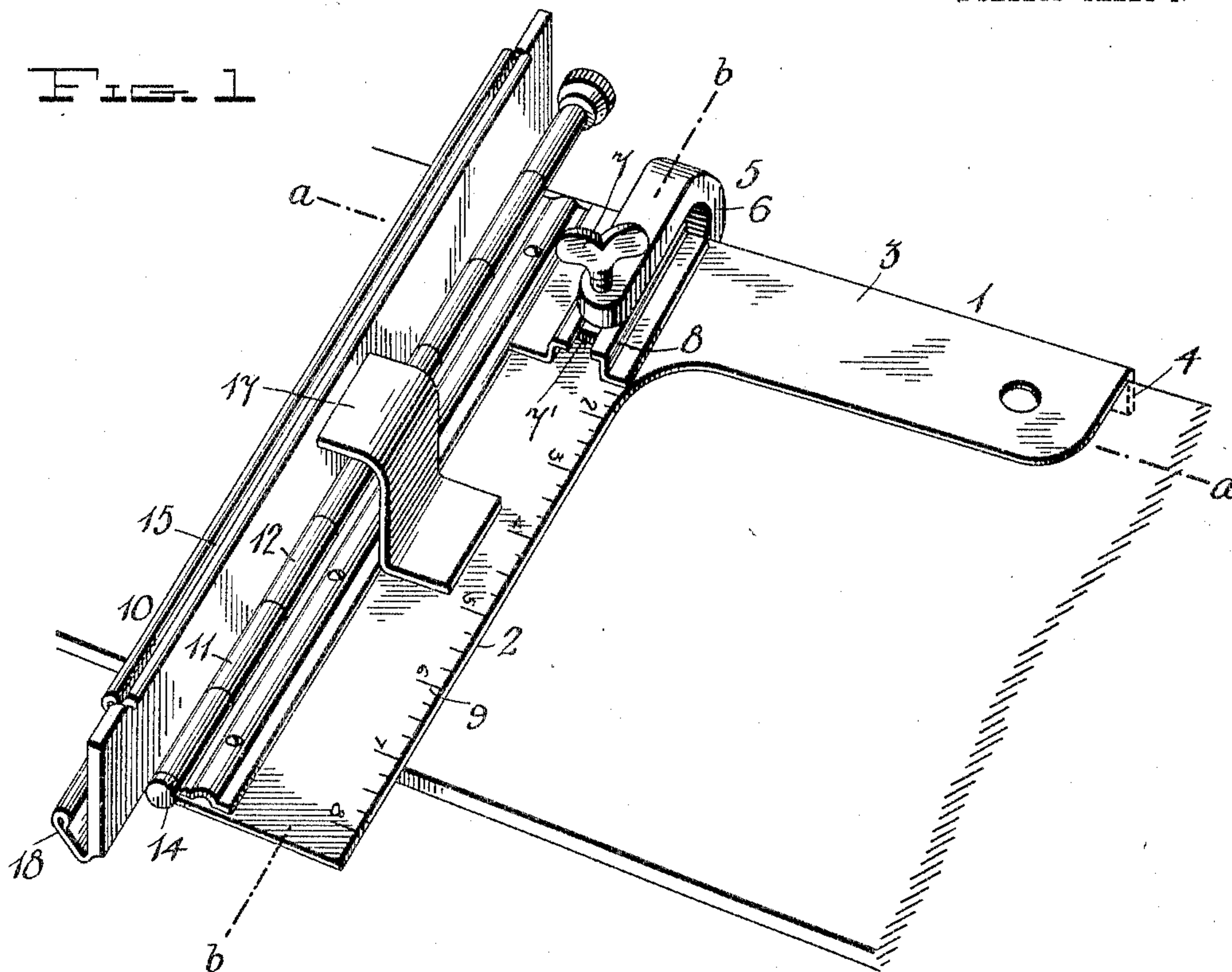
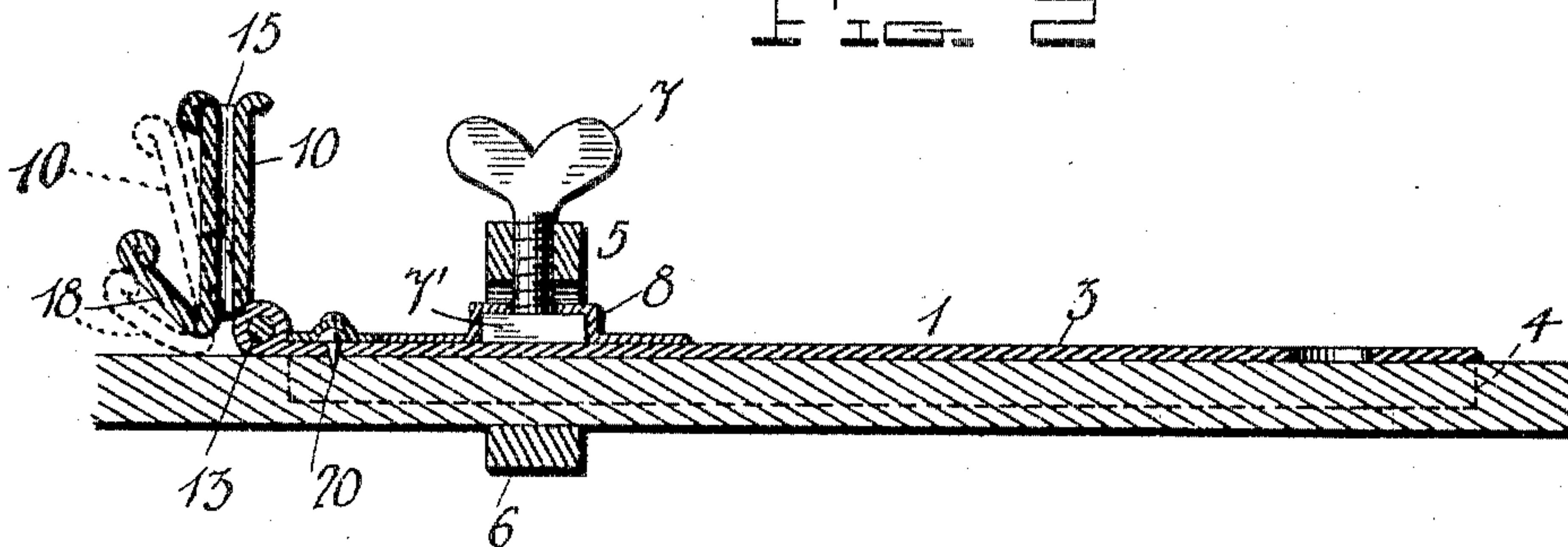


Fig. 2



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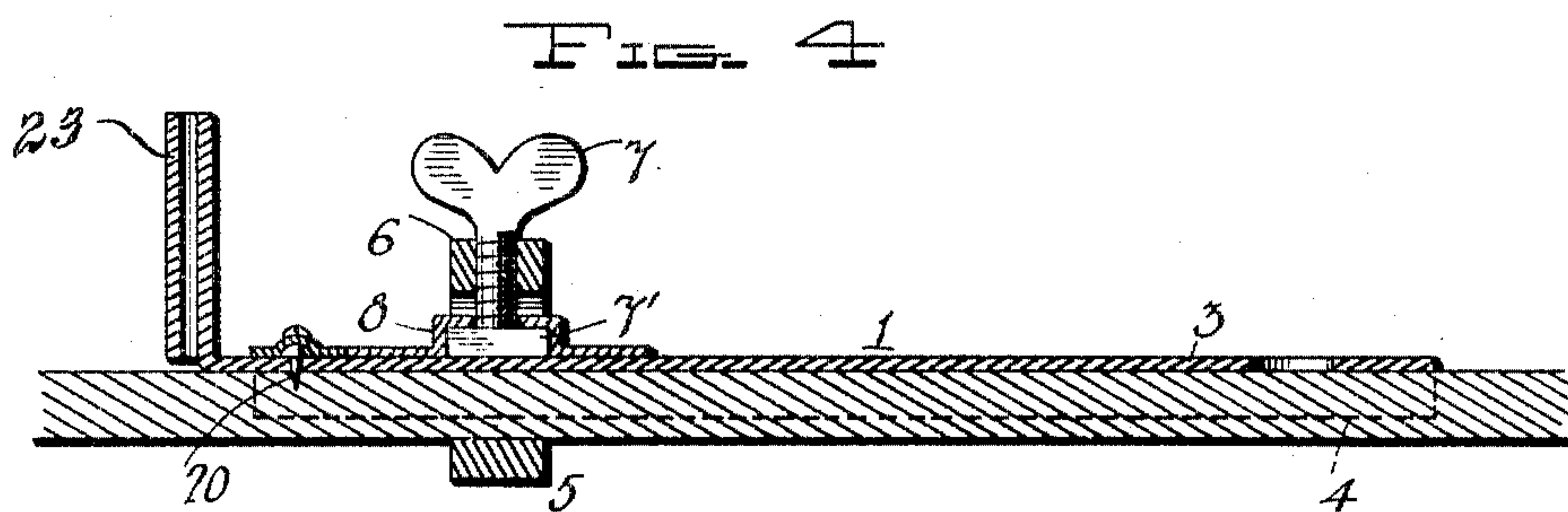
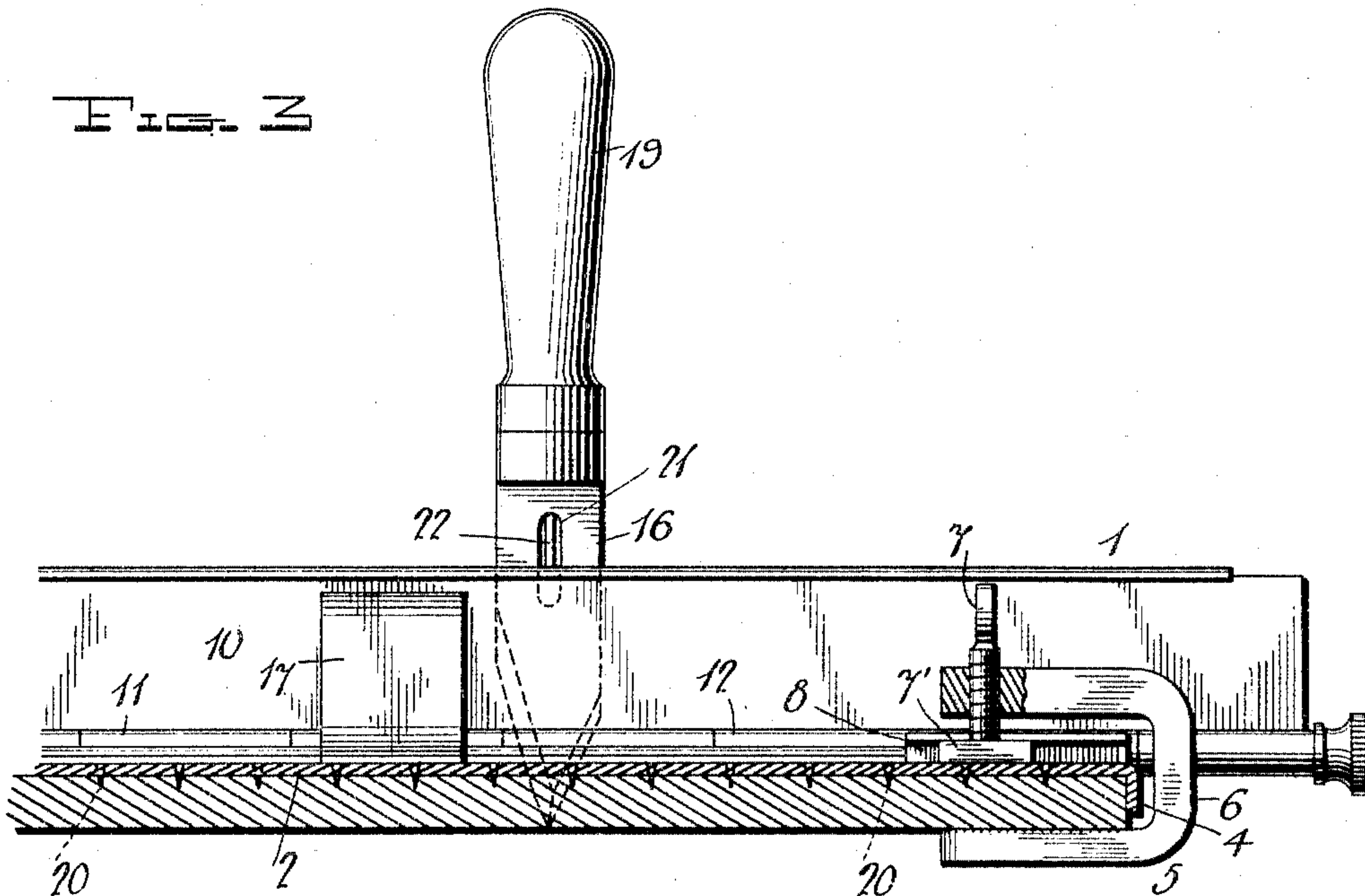
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2 SHEETS—SHEET 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK M. LINDERMAN, OF CHICAGO, ILLINOIS.

## BELT-CUTTER AND SQUARE.

SPECIFICATION forming part of Letters Patent No. 777,038, dated December 6, 1904.

Application filed March 28, 1904. Serial No. 200,485. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK M. LINDERMAN, 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 Belt-Cutters and Squares; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improved belt-cutter and square adapted for use in cutting the ends of power-belts either at right angles or on a bevel prior to joining the ends together by any of the common forms of belt-fastening devices; and my invention consists in the construction and combination of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved belt-cutter and square. Fig. 2 is a detail sectional view of the same, taken on the plane indicated by the line *a a* of Fig. 1. Fig. 3 is a similar view taken on the plane indicated by the line *b b* of Fig. 1. Fig. 4 is a sectional view of a modified form of my invention.

In the embodiment of my invention I provide a square 1 of suitable size and comprising the "transverse" arm 2 and the "longitudinal" arm 3, so termed because of their disposition with relation to a belt to be cut. The longitudinal arm 3 has a depending flange 4 at its outer side to bear against one of the longitudinal edges of a belt, so that the arm 2 is disposed across the same at right angles thereto. A clamp 5 is provided to secure the square on a belt. Said clamp may be either of the form here shown or of any other suitable form. As here shown, it comprises a U-shaped yoke 6, the arms of which are adapted to bear on the upper side of the arm 2 and the under side of the belt, respectively, a clamping-screw 7 in a threaded opening in the upper arm of the yoke, and a shoe 7', swiveled to the point of the screw. This shoe engages a guideway 8 on the upper end of the arm 3, where it meets the arm 2. The guideway and shoe enable the clamp to be adjusted as may be required and to be attached to the square and detached therefrom at will. The arm 2

is preferably provided with a measuring-scale 9.

At the outer edge of the arm 2 is a cutter guide and gage 10. The arm 2 and cutter guide and gage are respectively provided with hinge members 11 12, and a pintle-rod 13 is placed in alined openings in said members, and thereby the guide and gage is hinged to the transverse arm of the square. Said pintle-rod is detachable to permit of the detachment of the guide and gage and has a head 14 at one end and a thumb-nut at the opposite end, as shown. The guide and gage is longer than the transverse arm of the square, and its ends project beyond the ends thereof, as shown. The guide and gage is provided with a longitudinal guide-slot 15, in which the blade of a cutter or knife 16 may be placed and through which it may be drawn to cut off the end of a belt.

On the transverse arm of the square is shown a stop-arm 17, which serves when the guide and gage is turned and held pressed against it to hold said guide and gage in such position as to dispose the cutter or knife at right angles to the face of the square, and hence cause the cutter or knife when operated manually to cut off the end of a belt at a right angle. To enable the guide and gage to be held at an angle of forty-five degrees from the square and cause the end of the belt to be cut on a miter, as required when certain forms of belt-fasteners are to be used, I provide the square and gage on its outer side with a foot-flange 18, disposed at an angle of forty-five degrees with reference thereto. This foot-flange is adapted to bear on the upper side of the belt when the same is to be cut, as shown in dotted lines in Fig. 2.

The cutter or knife has a handle 19, by which it may be grasped and operated, and its blade, which operates in the slot 15 of the guide and gage, has its point reversely curved and beveled, as shown. The blade of the cutter has a slot 21 for the insertion of a suitable gage-key 22 to bear on the upper straight edges of the guide and gage and retain the blade in the required position when in use.

The transverse arm of the square is provided with a series of marking-points 20,



which project from its under side and are appropriately spaced apart, in practice one-half an inch apart and the point nearest the flange 4 at a distance of one-half an inch therefrom.

5 These points when the square is clamped on a belt to be cut enter the belt and mark the places where the fasteners are to be inserted.

In Fig. 4 of the drawings I show a modified form of my invention, in which the cutter-  
10 guide 23 is rigidly connected to the square and the guide-slot therein is at right angles to the faces of the square. This form of the invention is adapted for use in cutting the ends of belts which do not require their cut ends  
15 to be beveled.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without re-  
20 quiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of  
25 this invention.

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

1. A device for use in cutting the ends of  
30 power-belts and comprising a square having a guide element secured on one side and projecting beyond one edge thereof, and parallel with said edge to correspondingly direct the blade of a cutter.

35 2. A device for use in cutting the ends of power-belts and comprising a square having a guide element secured on one side and projecting beyond one edge thereof and parallel with said edge, said guide element being con-  
40 nected to the square for lateral angular movement with reference to that surface thereof which bears against the work.

3. A device for use in cutting the ends of power-belts and comprising a square having

a guide element secured on one side and pro- 45  
jecting beyond one edge thereof and parallel with said edge, said guide element being connected to the square for lateral angular move-  
ment with reference to that surface thereof 50  
which bears against the work, means to position said guide element at right angles to said surface, and a foot-flange projecting from  
said angularly-movable guide element to bear  
on the surface of the work and position the  
guide element at an oblique angle with refer- 55  
ence to the work, substantially as described.

4. A device for use in cutting the ends of power-belts and comprising a square having  
a guide element secured on one side and pro- 60  
jecting beyond one edge thereof and parallel with said edge, in combination with a cutter  
guided by said guide element, and a gage device carried by said cutter and coacting with  
said guide element, substantially as described.

5. A device for use in cutting the ends of 65  
power-belts and comprising a square having means to engage one edge of a belt, a guide  
element to direct a cutter across the belt, a  
guideway, a shoe movable therein, and a clamp  
to secure the square on the belt and connected 70  
to said movable shoe, substantially as described.

6. A device for use in cutting the ends of  
power-belts and comprising a square having  
a guide element to direct a cutter across a 75  
belt, a guideway, a shoe movable in the guideway, a clamp-yoke having one arm above and  
one arm below the square, and a screw in the  
upper clamp-yoke arm and swiveled to the  
shoe, substantially as described. 80

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK M. LINDERMAN.

Witnesses:

WM. H. REID,

THOS. J. E. KEMP.