

O. LARSEN.
ATTACHMENT FOR PAPER CUTTING MACHINES.
APPLICATION FILED MAR. 29, 1911.

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Patented June 20, 1911.

2 SHEETS-SHEET 1.

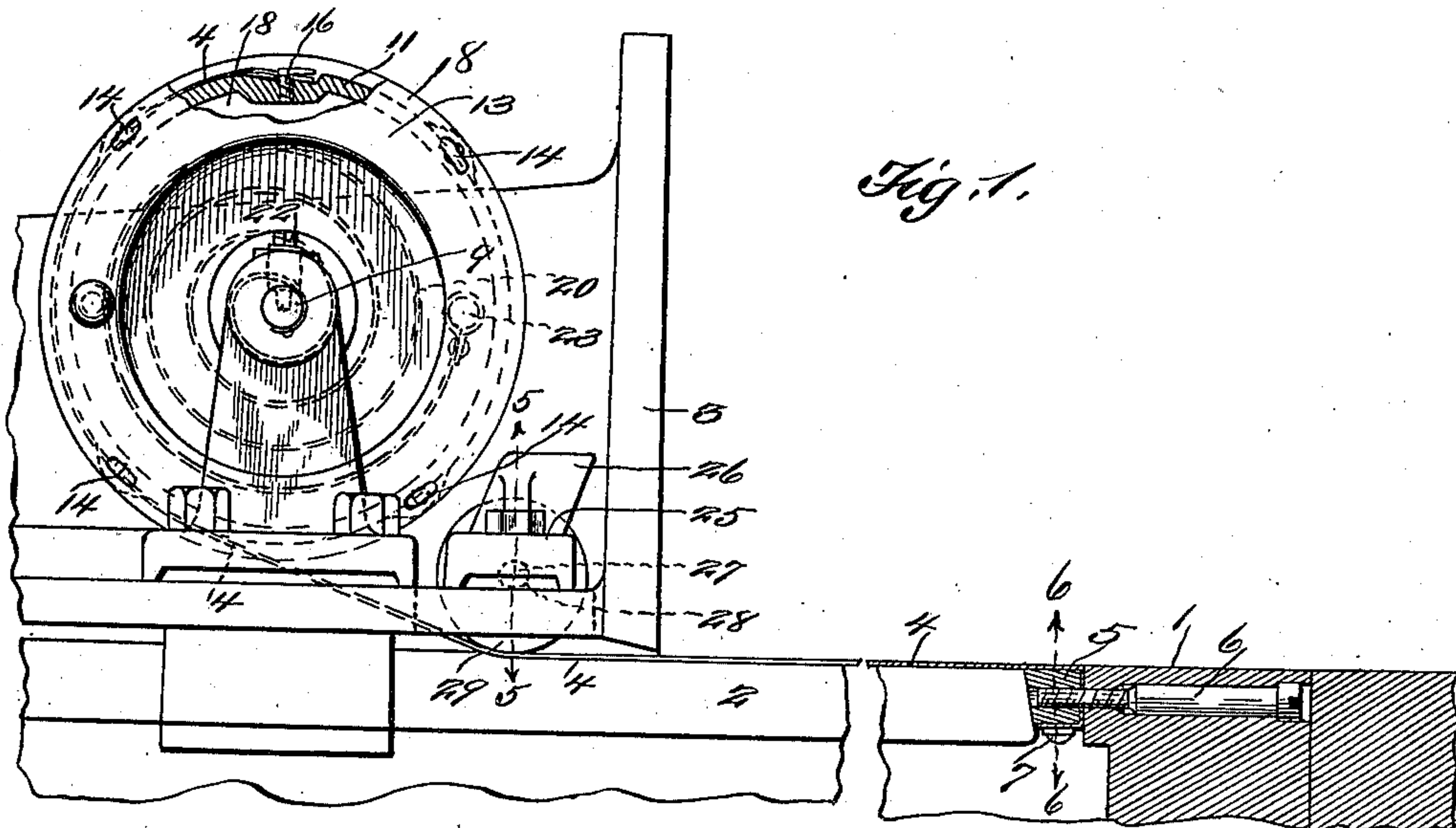


Fig. 1.

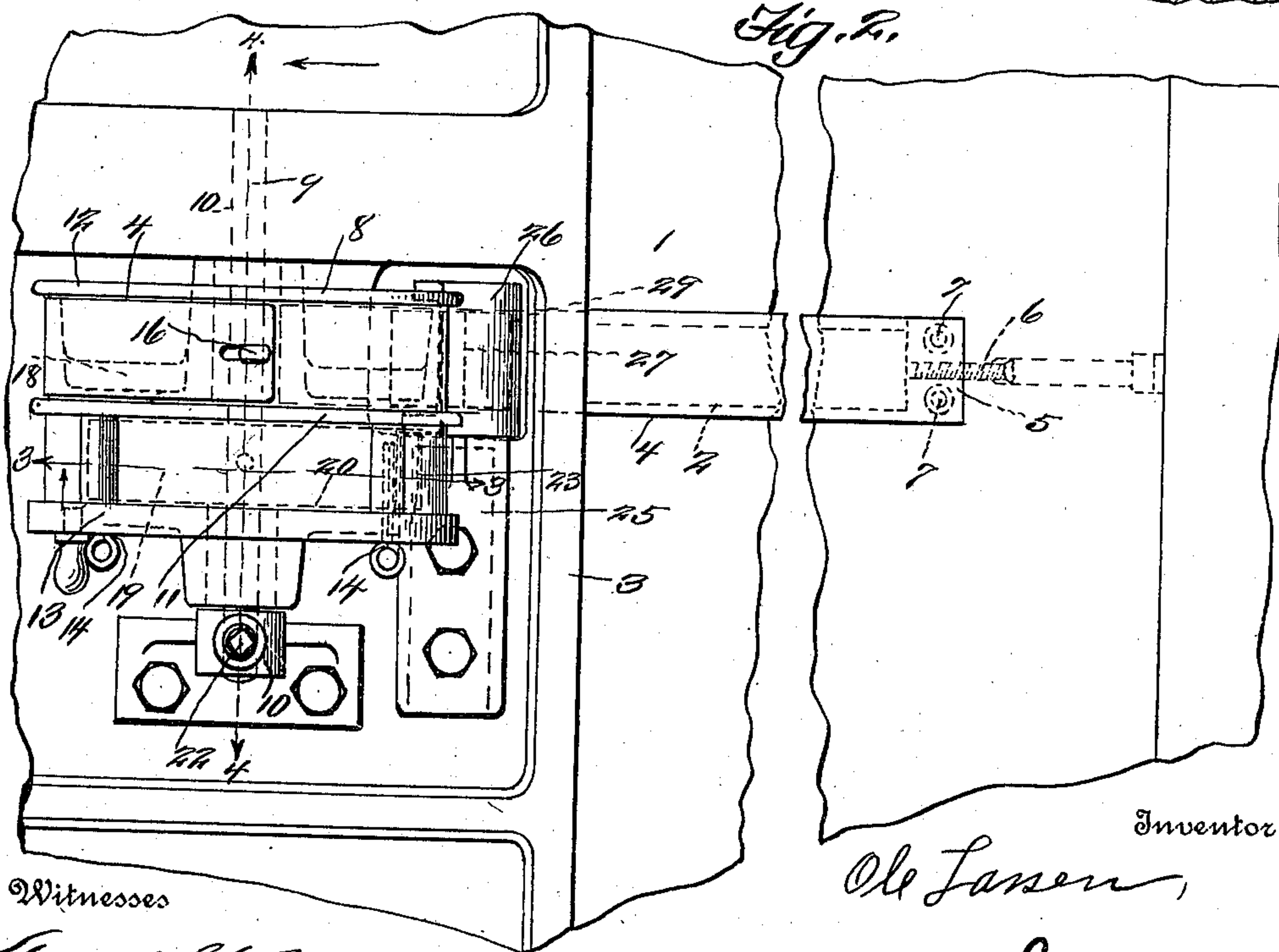


Fig. 2.

Witnesses

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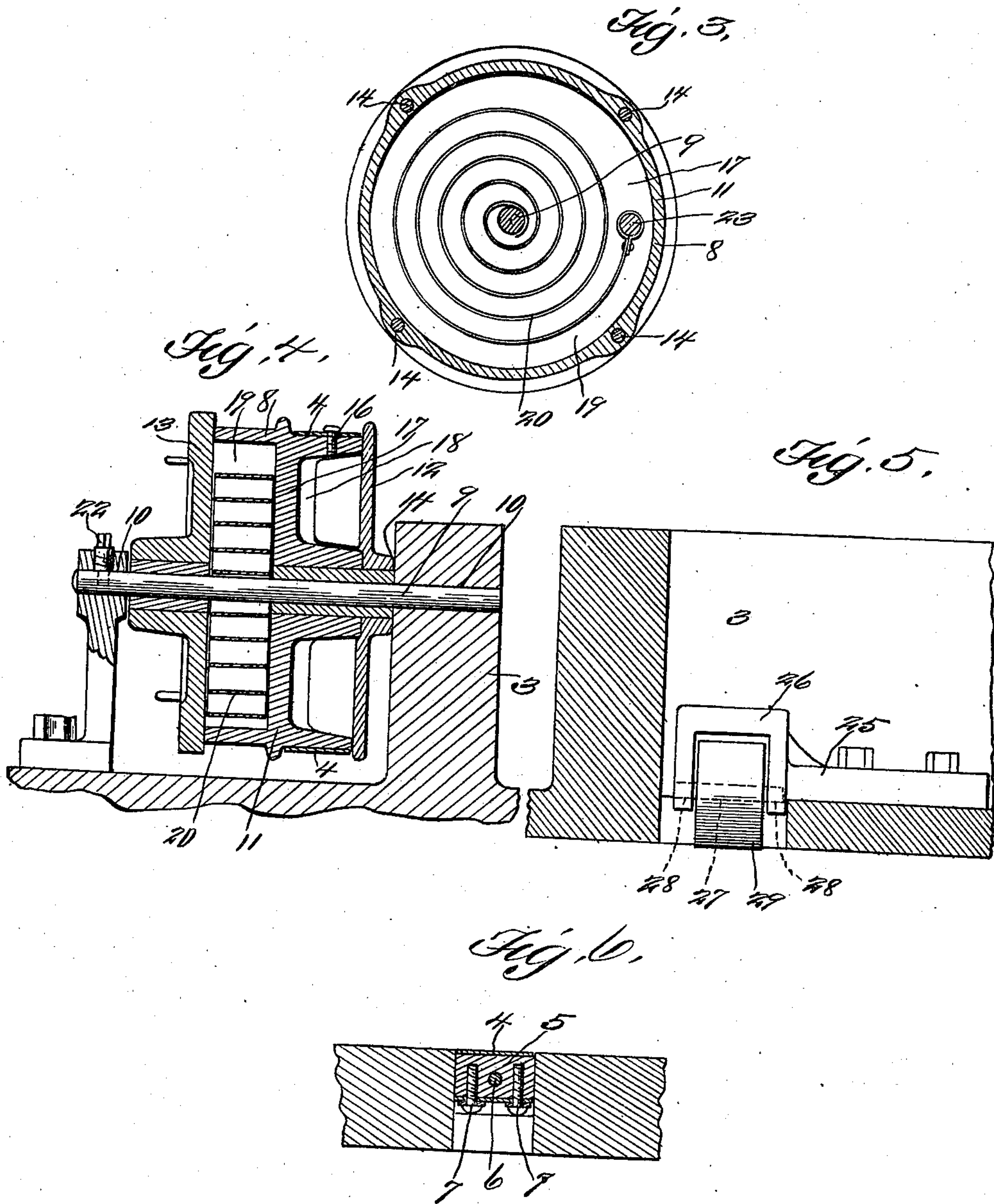
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Witnesses

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR PAPER-CUTTING MACHINES.

995,972.

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To all whom it may concern:

Be it known that I, OLE LARSEN, a citizen of the United States, residing at South Windham, in the county of Windham and State of Connecticut, have invented a new and useful Attachment for Paper-Cutting Machines; and I do hereby 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.

This invention relates to a new and useful slot guard adapted for use upon paper trimming machines.

The object of the invention is to provide a steel band or tape, secured at one end adjacent to one end of the guide slot for the gage, while the other end is carried by a spring tensioned drum, so that when the paper gage is moved rearwardly of the bed of the paper cutting machine the steel band or tape will automatically unreel from the drum, thus closing or covering the slot. Then when the gage is moved forwardly, the steel band or tape automatically reels upon the drum by the action of the spring.

Another object of the invention is to provide a roller or other suitable means for holding the steel tape or band in the slot, so that its upper surface will be on a plane even with the surface of the bed, as the steel band reels from the drum. In the drawings, however, there is only one form of the invention disclosed, but, in practical fields, this form may require alterations, to which the applicant is entitled, provided the alterations are comprehended by the appended claims.

The invention comprises further features and combinations of parts hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view partly in elevation and partly in section of a portion of a paper cutting machine and its paper gage, showing the device applied thereto, and constructed in compliance with the invention. Fig. 2 is a top plan view. Fig. 3 is a sectional view on line 3—3 of Fig. 2, showing the construction of the spring tensioned drum. Fig. 4 is a sectional view on line 4—4 of Fig. 2. Fig. 5 is a sectional view on line 5—5 of Fig. 1, showing the roller for holding the steel band or tape within the slot and even with the upper surface of the bed of the paper cutting machine. Fig. 6 is a transverse sectional view on line

6—6 of Fig. 1, showing the manner of fastening the steel band or tape adjacent the end of the slot in the bed of the paper cutting machine.

Referring to the drawings, 1 designates the bed of a paper cutting machine, in which a slot 2 is formed. This slot 2 constitutes a guiding medium for the paper gage 3, as shown in the drawings.

Secured to the bed of the machine, adjacent one end of the slot, is a steel band or tape 4. This steel band or tape is secured to the bed of the machine by means of the block 5, through which the bolt or lag screw 6 is threaded. The block 5 is arranged in the slot adjacent its end, and the tape or band is secured to it by the screw 7.

The paper gage 3 carries what may be termed a spring tensioned drum 8. This spring-tensioned drum is mounted upon a shaft 9, which is mounted in bearings 10 of the gage. This drum comprises three parts, an intermediate part 11 and two outside parts or covers 12 and 13, which are secured to the intermediate part, as shown at 14. The intermediate part, however, is provided with a central annular rib, between which and the part or cover 12 the steel band or tape reels and unreels, as the gage is moved rearwardly or forwardly. The steel band or tape is secured to the spring tensioned drum by means of the pin 16. The intermediate part is provided with a centrally arranged partition 17, which divides the intermediate part into two compartments 18 and 19. The compartment 18 receives the extensions of the part 12, while the compartment 19 receives the coiled spring 20. One end of this spring is secured to the shaft 9 (which is secured in its bearings against rotary movement by the set screw 22), while the other end of the spring is secured on a stud 23 of the part 13. Thus it will be seen that as the gage is moved rearwardly, the steel band or tape will unreel from the spring tensioned drum against the action of the spring and when the gage is moved forwardly, the action of the spring causes the steel band or tape to reel upon the drum.

Bolted or otherwise secured to a portion of the gage is a bracket plate 25, which is provided with an overhanging U-shaped portion 26. Mounted upon a pin 27 (which is journaled in bearings 28 of the U-shaped

overhanging portion) is a roller 29. This roller 29 is adapted to engage the upper surface of the steel band or tape, so as to hold the same within the slot 2 of the bed of the paper cutting machine, sufficiently so that the upper surface of the steel band or tape will be disposed on a plane even with the upper surface of the bed of the machine, thus sufficiently and effectively closing or covering the slot, as the gage moves rearwardly.

From the foregoing, it will be noted that there has been devised a practicable, simple and efficient slot guard, and one which will fulfil the various requirements in this particular art of industry.

The invention having been set forth, what is claimed as new and useful is:—

1. In a paper trimming machine, a table bed having formed therein a guide slot, a follower slidably mounted on the table and in said slot and provided with a spring tensioned drum, and means secured at one end adjacent one end of the slot and reeled about the drum with its other end secured thereto for closing the slot.

2. In a paper trimming machine, a table bed having formed therein a guide slot, a follower slidably mounted on the table and in said slot and provided with a spring tensioned drum, a flexible tape member secured at one end adjacent one end of the slot and reeled about the drum with its other end secured thereto for closing the slot, and means for bearing against the tape member for holding it in the slot with its upper surface even with the surface of the table.

3. In a paper trimming machine, a table bed having formed therein a guide slot, a follower slidably mounted on the table and in said slot and provided with a spring tensioned drum, a flexible tape member secured

at one end adjacent one end of the slot and reeled about the drum with its other end secured thereto for closing the slot.

4. In a paper trimming machine, a table bed having formed therein a guide slot, a follower slidably mounted on the table and in said slot and provided with a spring tensioned drum, a flexible tape member secured at one end adjacent one end of the slot and reeled about the drum with its other end secured thereto for closing the slot, a bracket member carried by the follower, a roller revolvably carried by the bracket member for engagement with the upper surface of the tape member for holding it in the slot with its upper surface even with the surface of the table.

5. In a paper trimming machine, a table bed having a guide slot formed therein, a follower gage slidably mounted upon the table and in said slot and provided with a spring tensioned drum, a block secured in the slot at one end thereof, means extending through the table bed and threaded into the block, a flexible metallic tape member secured to the block at one end and reeled about the drum with its other end secured thereto for closing the slot, a bracket member carried by the follower gage, a roller revolvably carried by the bracket member for engagement with the upper surface of the tape member for holding it in the slot with its upper surface even with the surface of the table.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OLE LARSEN.

Witnesses:

CARL E. OMAR,
GEORGE H. BACKUS.