

No. 785,328.

PATENTED MAR. 21, 1905.

A. PLESS.
DEVICE APPLIED TO CIRCULAR SAWS.
APPLICATION FILED DEC. 29, 1903.

Fig. 1.

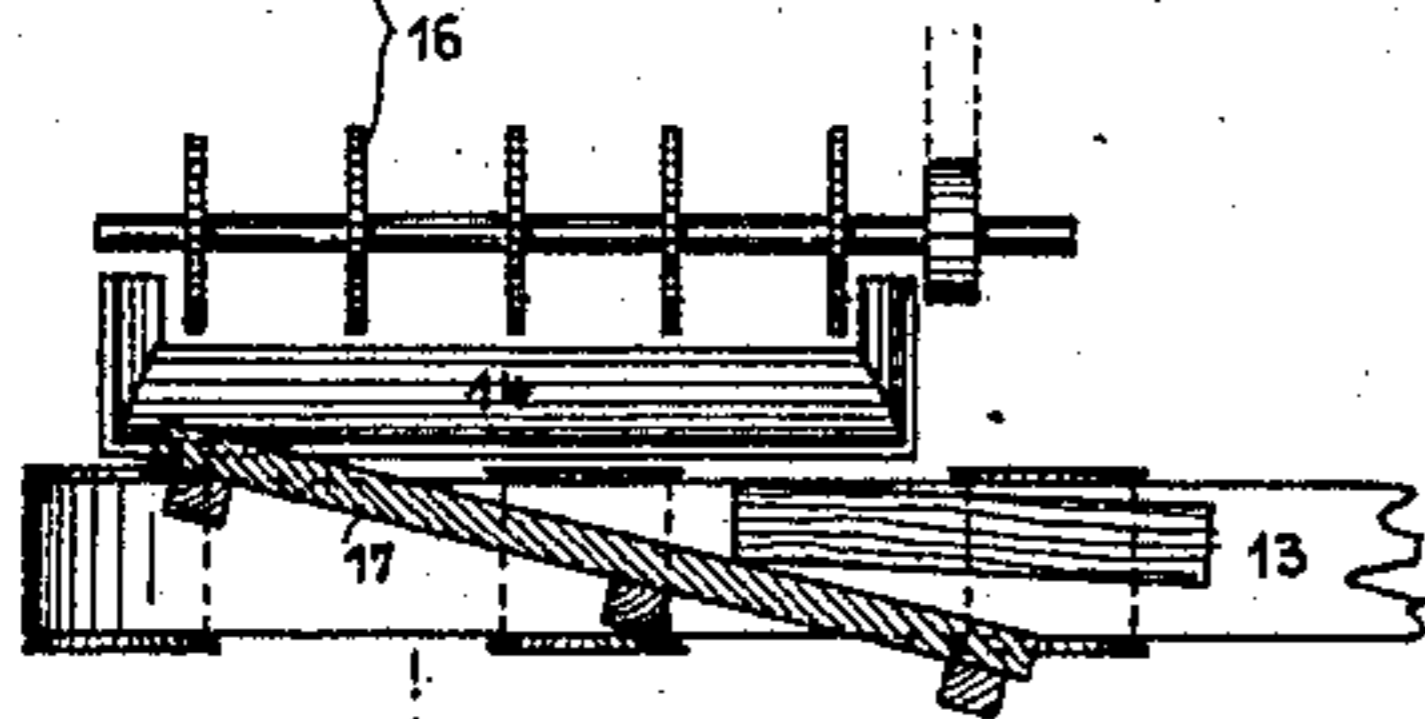
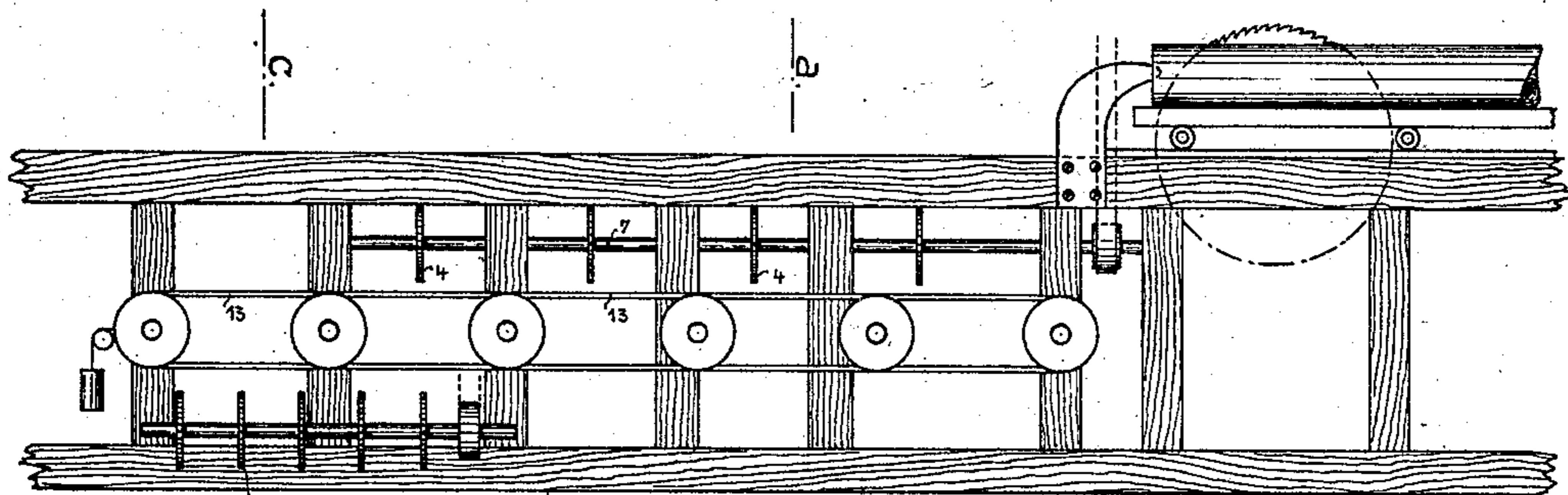


Fig. 4.

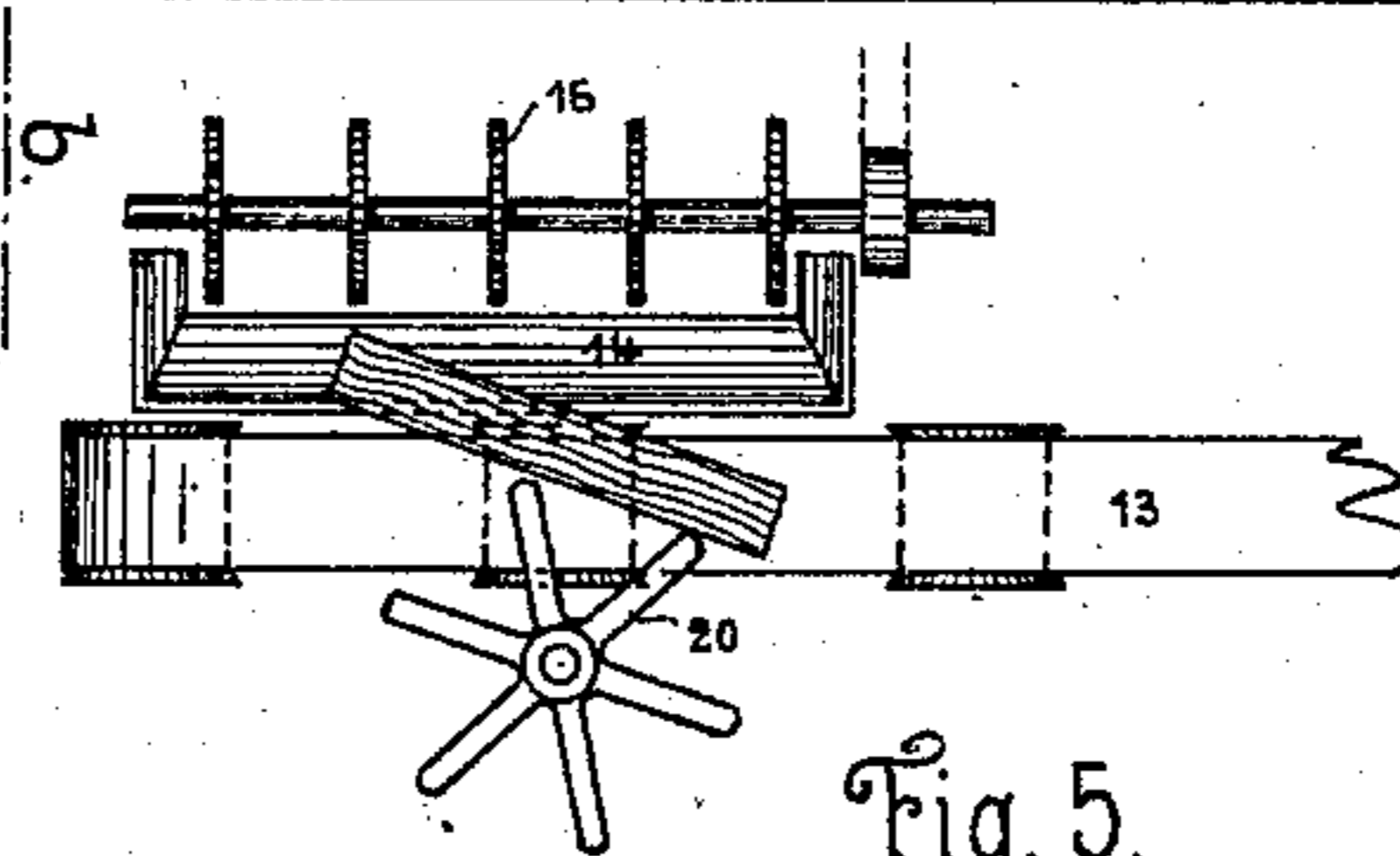


Fig. 5.

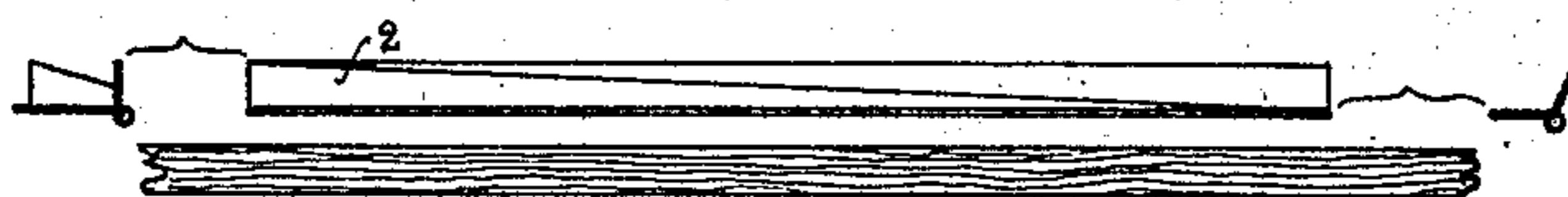


Fig. 6.

Section a-b.

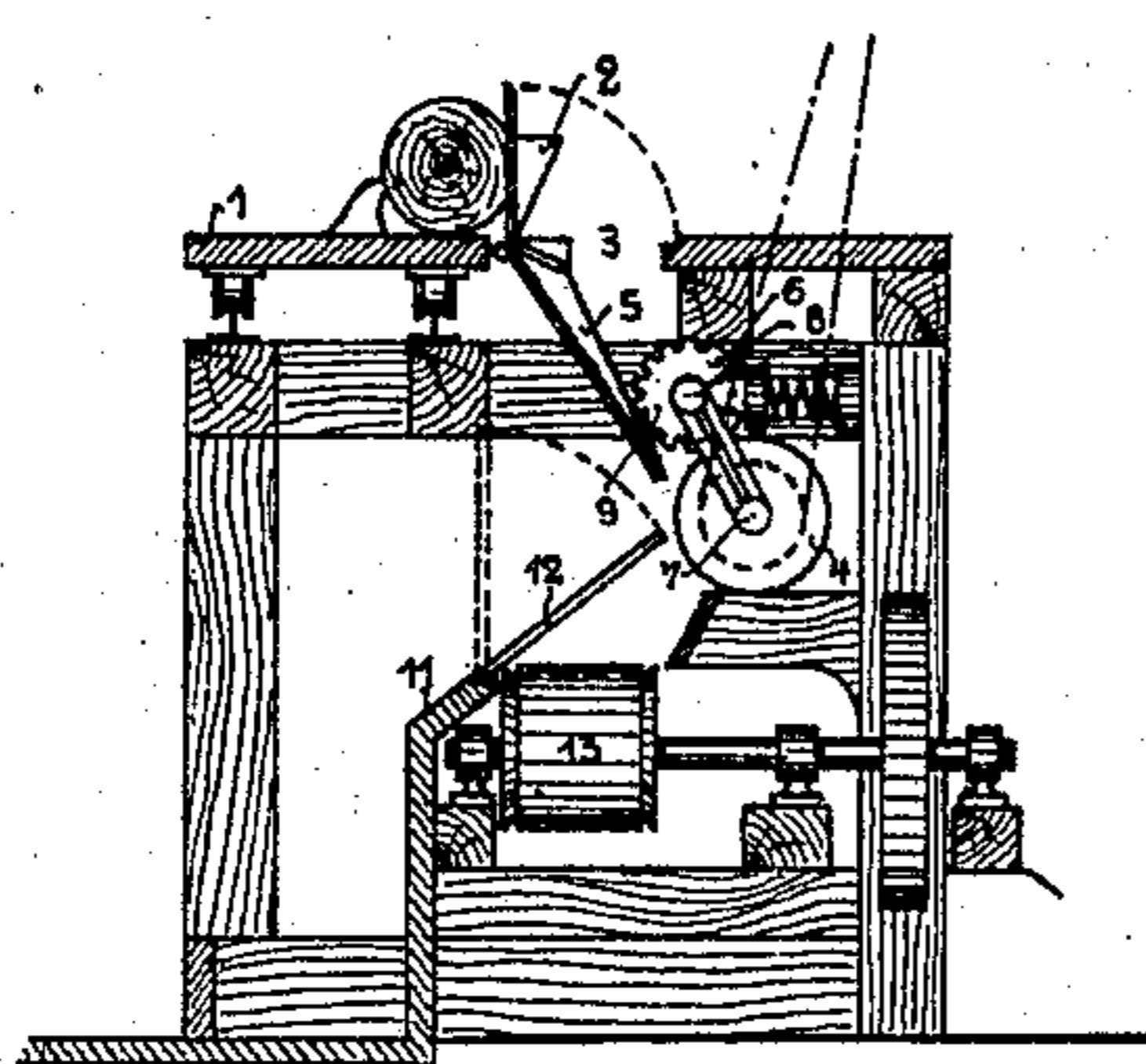


Fig. 2.

Section c-d.

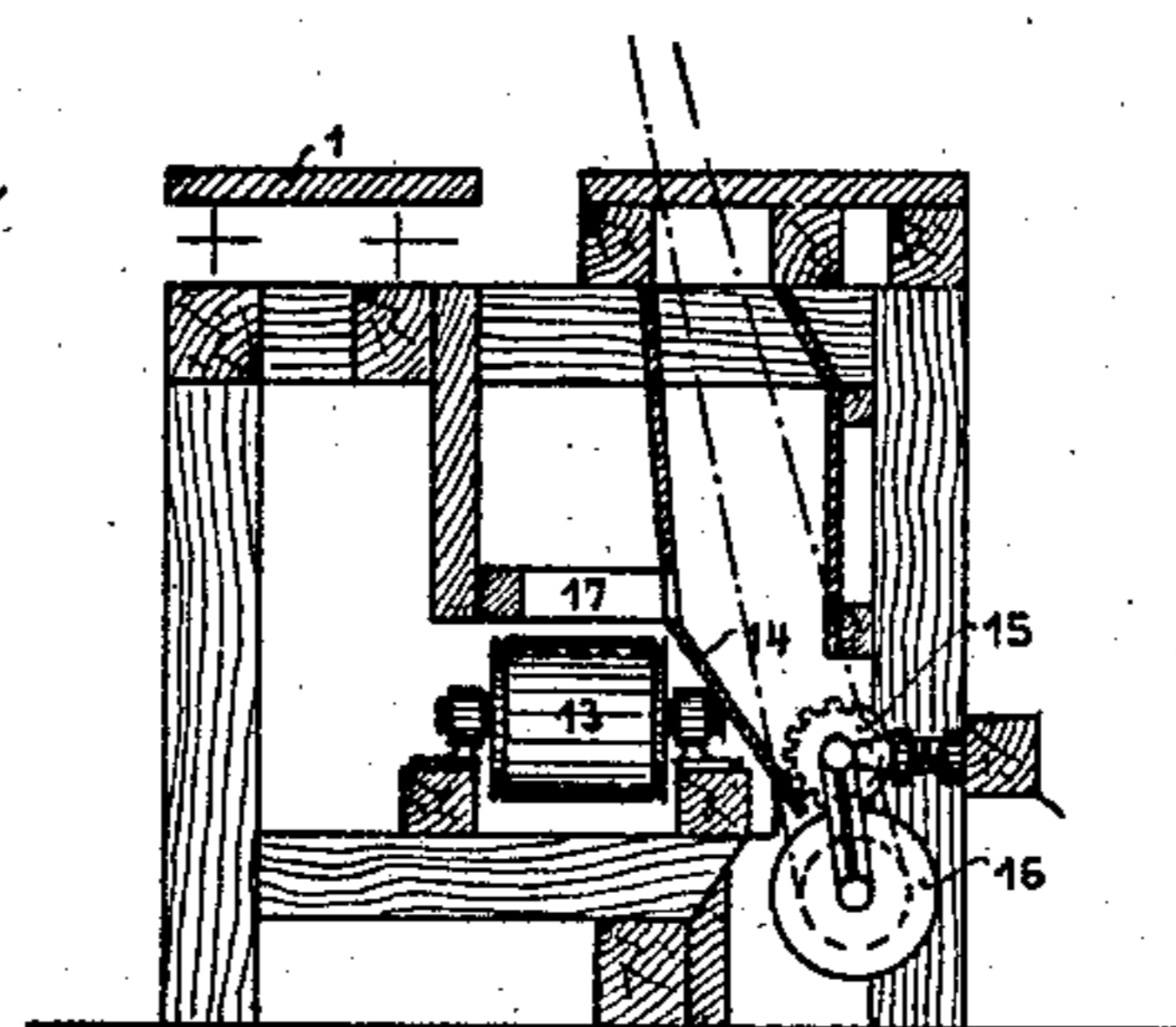


Fig. 3.

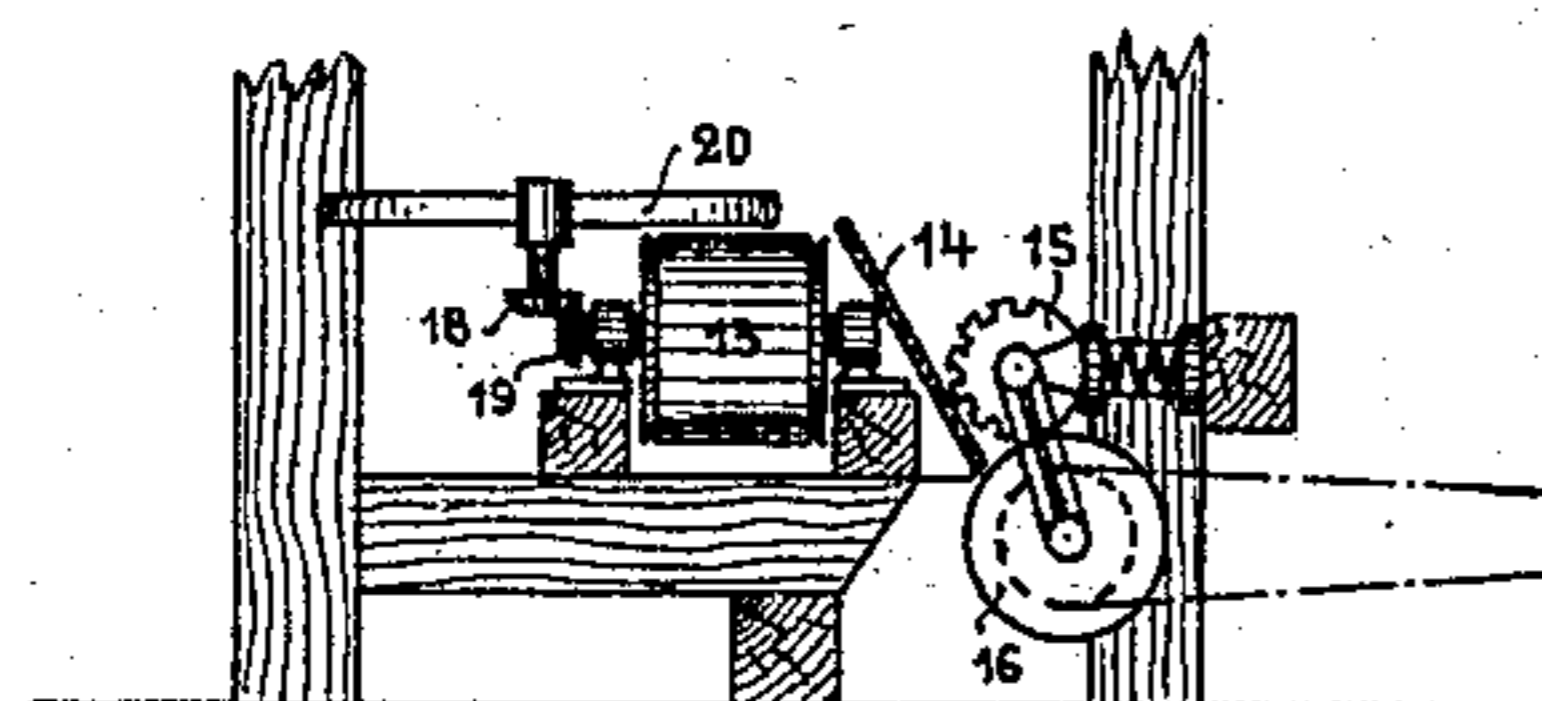


Fig. 7.

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UNITED STATES PATENT OFFICE.

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DEVICE APPLIED TO CIRCULAR SAWS.

SPECIFICATION forming part of Letters Patent No. 785,328, dated March 21, 1905.

Application filed December 29, 1903. Serial No. 187,067.

To all whom it may concern:

Be it known that I, ANTON PLESS, graduated builder, a subject of the Emperor of Austria-Hungary, and a resident of Karbitz, Bohemia, Empire of Austria-Hungary, have invented certain new and useful Improvements in Devices Applied to Circular Saws, of which the following is a specification.

My invention relates to a device applied to circular dressing-saws for removing the waste wood or outer cuttings which hitherto have had to be removed by hand and automatically cutting it into lengths, the different pieces being collected in a chamber provided for the purpose.

The invention is illustrated in the accompanying drawings, Figure 1 being a side elevation; Fig. 2, a transverse section through *a b*; Fig. 3, a transverse section through *c d*, Figs. 4 to 7 representing details.

As the sawing of the wood proceeds the sawed-off wood is split off by the cleaving-wedge, carried off separately parallel to the main piece of timber, and then forced behind the cleaving-wedge sidewise from the main timber by means of a deflecting-wedge 2, shiftable into and out of operative position, Figs. 2 and 6.

In the table 1 is a funnel-shaped opening 3, at the lower end of which, at suitable distances apart, circular saws 4 are provided. When the sawed-off wood has been completely separated from the main piece of timber, it falls into the opening 3 and slides on the oblique surface 5 thereof against a feed device 6, from which it is slowly conveyed to the saw-blades 4, arranged at intervals of one meter apart, and is cut into pieces one meter long. The device 6 consists of a shaft 8, which runs parallel with the shaft 7, that carries the saw-blades. The shaft 8 is provided with toothed wheels or disks 9, which are actuated by the saw-shaft. One or more springs 10 press against the shaft 8 in order that whether the pieces of wood be thinner or stouter the toothed wheels or disks 9 may always engage uniformly and the sawed-off piece of wood be reliably fed to the saw-blades. The divided pieces then pass over a slideway formed of a fixed section 11 and a shiftable section 12.

The latter is movable into and out of operative position. The slideway is arranged below the circular-saw sawing-jack into a collecting-chamber, Figs. 1 and 2. If now it be desired to cut the planks or battens into shorter pieces—for example, into firewood—the section 12 of the slideway is shifted to a vertical position, as shown in dotted lines, Fig. 2. The passage between the oblique surfaces 5 and the circular saws 4 is widened by turning back the former. In this case the sawed-off piece falls onto a conveying-band 13, which runs over rollers, Figs. 1 and 3, is carried along therewith, and brought by means of an ejecting device (illustrated in Figs. 4, 5, and 7) onto an oblique surface 14, whence it is conveyed by the feed device 15 in the manner described under 6 to saw-blades 16, arranged at short distances apart, and is cut into pieces of twenty to twenty-five centimeters in length. The short pieces then fall into an underground collecting-chamber.

The ejecting device can be made in two forms, the first of which is shown in Fig. 4. Above the conveying-band, opposite the hopper 14, a diverting-board 17 is provided, by means of which the pieces of wood a meter long which come onto the band are diverted toward the hopper or oblique surfaces 14, so as to reach the saw-blades. The second of these forms is shown in Figs. 5 and 7. Sidewise to a roller belonging to the conveying-band 13 a vertical shaft 18 is provided, which engages, by means of beveled wheels, with the shaft 19 of the roller and is actuated thereby. At the upper end of the shaft 18 a winged wheel 20 is arranged, the wings of which sweep closely against the band. When a piece of wood comes near the wheel 20, it is conveyed by the wings thereof into the hopper onto the oblique surface 14. It should be further remarked that the slide-opening 3 can be closed by the collapsible diverting-wedge, so that work may be carried on without the crosscut-saws 4 and 16.

What I claim, and desire to secure by Letters Patent, is—

1. In a device for circular sawing machines for automatically cutting the sawed-off wood into lengths, the combination with the ma-

chine-table having a longitudinally-extending opening and a clearing-wedge carried by the table, of a deflecting-wedge arranged behind the clearing-wedge for deflecting the sawed-off wood through said opening, a shiftable and obliquely - extending conducting means secured to the table and arranged below the said opening and adapted to receive the wood, a plurality of saws, a plurality of tooth conveyer-wheels adapted to convey the wood from said conducting means to said saws, and a yielding shaft for said wheel.

2. In a device for circular sawing machines for automatically cutting the sawed-off wood into lengths, the combination with the machine-table having a longitudinally-extending opening and a clearing-wedge carried by the table, of a deflecting-wedge arranged behind the clearing-wedge for deflecting the sawed-off wood through said opening, a shiftable and obliquely-extending conducting means secured to the table and arranged below the said opening and adapted to receive the wood, a plurality of saws, a plurality of tooth conveyer-wheels adapted to convey the wood from said conducting means to said saws, a yielding shaft for said wheel, and a shiftable conveying means for the wood from said saws.

3. In a device for circular sawing machines for automatically cutting the sawed-off wood into lengths, comprising the combination with the machine-table having a longitudinally-extending opening and a clearing-wedge carried by the table, of a deflecting-wedge arranged behind the clearing-wedge for deflecting the sawed-off wood through said opening, a shift-

able and obliquely - extending conducting means arranged below the opening and adapted to receive the wood, a conveyer arranged below said obliquely - extending conducting means and adapted to receive the wood therefrom, shiftable means for deflecting the wood from said conveying means, saws, and a conducting means adapted to receive the deflected wood from the conveying means for conducting the wood to said saws.

4. In a device for circular sawing machines for automatically cutting the sawed-off wood into lengths, comprising the combination with the machine-table having a longitudinally-extending opening and a clearing-wedge carried by the table, of a deflecting-wedge arranged behind the clearing-wedge for deflecting the sawed-off wood through said opening, a shiftable and obliquely - extending conducting means arranged below the opening and adapted to receive the wood, a conveyer arranged below said obliquely - extending conducting means and adapted to receive the wood therefrom, shiftable means for deflecting the wood from said conveying means, saws, a plurality of circular saws suitably spaced apart, and a conducting means adapted to receive the deflected wood for conducting it against the saws so that said wood can be cut into suitable lengths.

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

ANTON PLESS.

Witnesses:

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