No. 704,388. Patented July 8, 1902.

G. A. SCHWINGEL.

BELT TIGHTENER.

(Application filed Feb. 5, 1902.)

(No Model.)

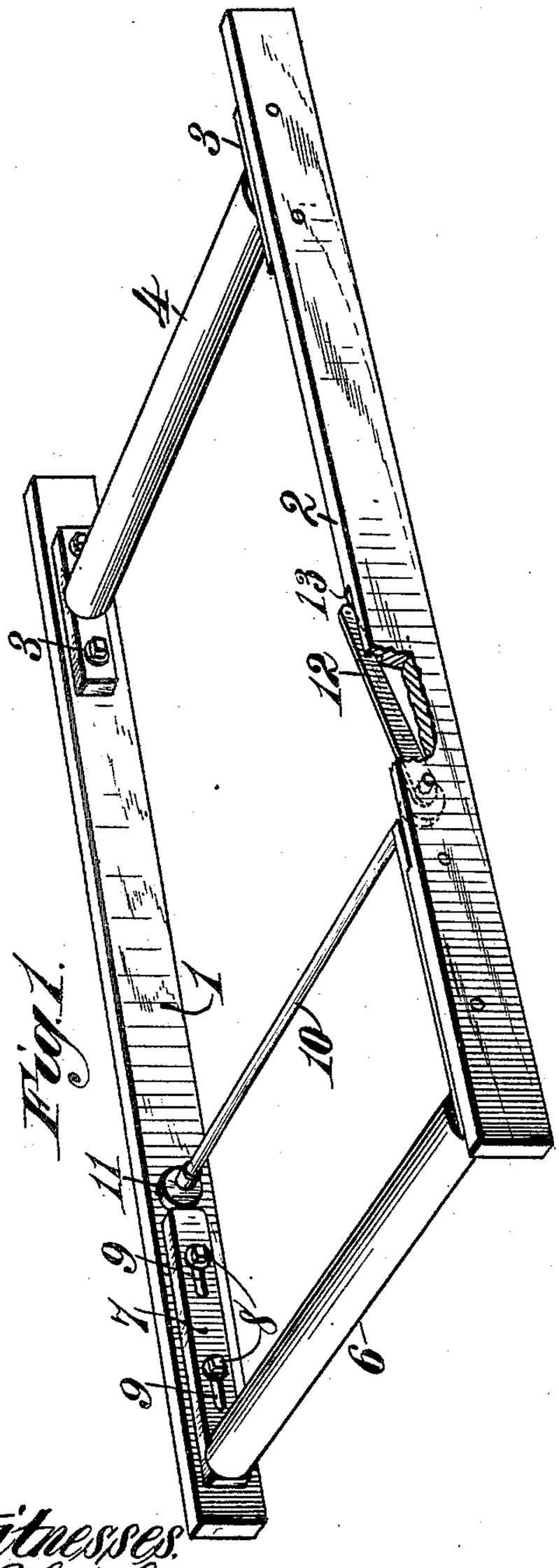

Fig. 1.

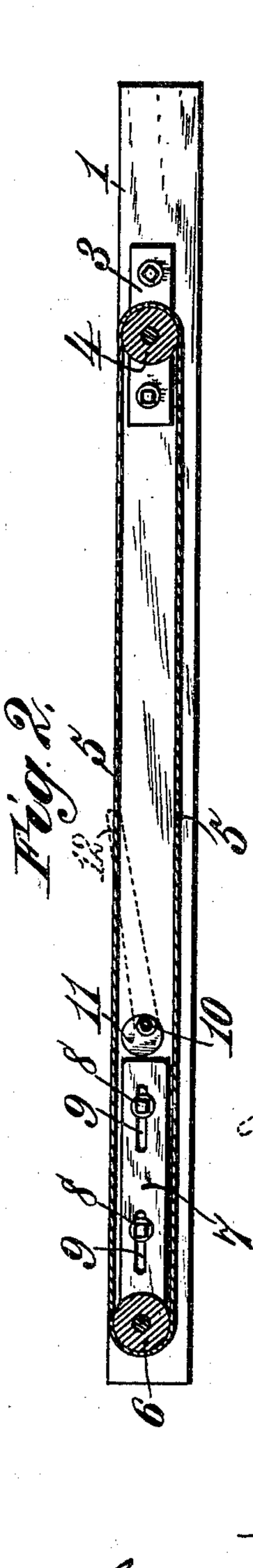

Fig. 2.

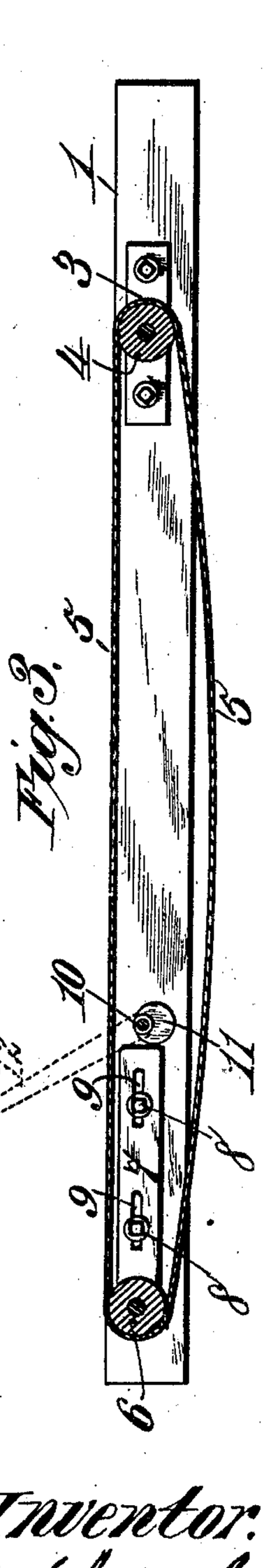

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE A. SCHWINGEL, OF AKRON, OHIO.

BELT-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 704,388, dated July 8, 1902.

Application filed February 5, 1902. Serial No. 92,634. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. SCHWINGEL, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Belt-Tighteners, of which the following is a specification.

My invention relates to tighteners for belts, and more particularly for the carrier-aprons of harvesters, and has for its object to provide certain improvements in the construction of the same, as will be hereinafter more definitely pointed out and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved device applied to the carrier-apron of a harvester. Fig. 2 is a longitudinal sectional view of the same, showing the mechanism adjusted to retain the carrier-apron in its taut or operative position. Fig. 3 is a similar view showing the mechanism adjusted to permit the carrier-apron to lie slack on its rollers.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings, the reference-numeral 1 denotes the front rail of the frame, and 2 the rear rail thereof. Mounted in fixed bearings 3, preferably bolted to the inner sides of said rails, is the usual fixed roller 4 for one end of the carrier-apron 5, while near the other end of the frame is located a similar roller 6 for the other end of said carrier-apron, the same being mounted in longitudinally-movable bearings consisting of bars 7, movably connected to the inner sides of the frame by means of bolts or pins 8, passing through elongated slots 9 in said bars 7. Mounted transversely in the frame parallel with the rollers 4 and 6 is a shaft 10, the same being located just beyond the inner ends of the bars 7 and having fixed thereto the eccentric cams 11, adapted to contact with the ends of said bars 7, as shown. A suitable operating lever or handle 12 is attached to one end of said shaft 10, the same preferably lying in a slot 13 in the rear rail 2 when in the position shown in Fig. 1.

From the above description the operation of my improved construction will be understood to be as follows: By raising the operating-lever 12 vertically from the position shown in Fig. 1 the cams 11 are turned toward the position shown in Fig. 3, thus bringing their narrow portions against the ends of the bars 7 and permitting the latter and the roller 6 to be moved toward the fixed roller 4. The carrier-apron 5 being now adjusted loosely around said rollers 4 and 6, as shown in Fig. 3, the same will be drawn taut when the lever 12 is returned to the position shown in Fig. 1 and the wide portions of the cams 11 thus brought into contact with the ends of the bars 7, forcing them and their adjustable roller 6 away from the roller 4, as shown in Fig. 2. It will be observed that when the lever 12 is in the position shown in Fig. 1 the cams 11 are turned slightly past their widest portions, thus serving to lock the parts in this position against anything but positive displacement through lifting said lever 12.

It will of course be understood that by the above-described means the apron-carrier 5 may be slackened at any time that the machine is not in operation, thus preventing undue elongation or stretching of said apron-carrier.

While I have shown and described my improved construction as applied to the carrier-apron of a harvester, to which it is particularly well adapted, still I do not wish to be understood as limiting myself to such particular use of the same, as it may with equal facility be applied to any other form of belting.

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

1. The combination with a belt, and a fixed roller therefor, of a roller for the other end of said belt, bearings for said roller movable to and from the fixed roller, cams abutting said bearings, and means for operating said cams to control the position of said bearings and roller.

2. The combination with a belt, and a fixed roller therefor, of a roller for the other end of said belt, bearings for said roller consisting of bars having a slotted engagement with bolts or pins on the frame, cams abutting the inner ends of said bars, a shaft to which said cams are fixed, and an operating-lever for said shaft.

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

GEORGE A. SCHWINGEL.

Witnesses:

J. DWIGHT PALMER,

L. F. SHIRER.