

J. W. HERBERT.
LOOM.
APPLICATION FILED AUG. 30, 1911.

1,016,009.

Patented Jan. 30, 1912.
2 SHEETS—SHEET 1.

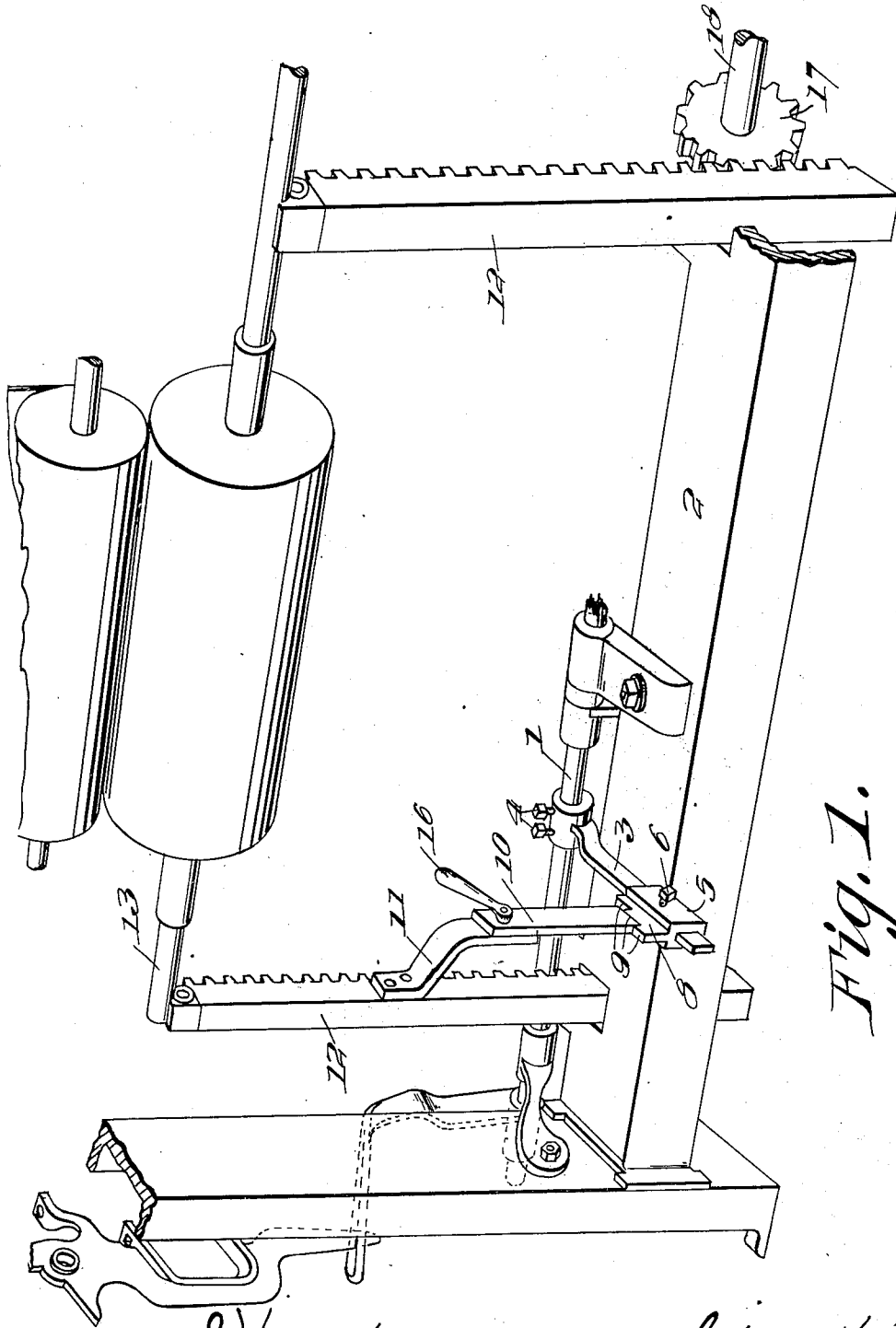


Fig. 1.

WITNESSES
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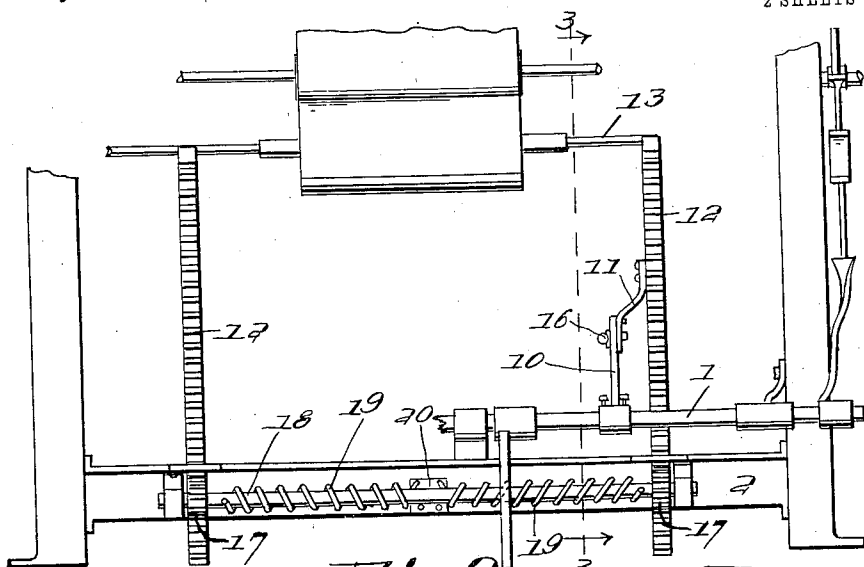


Fig. 2.

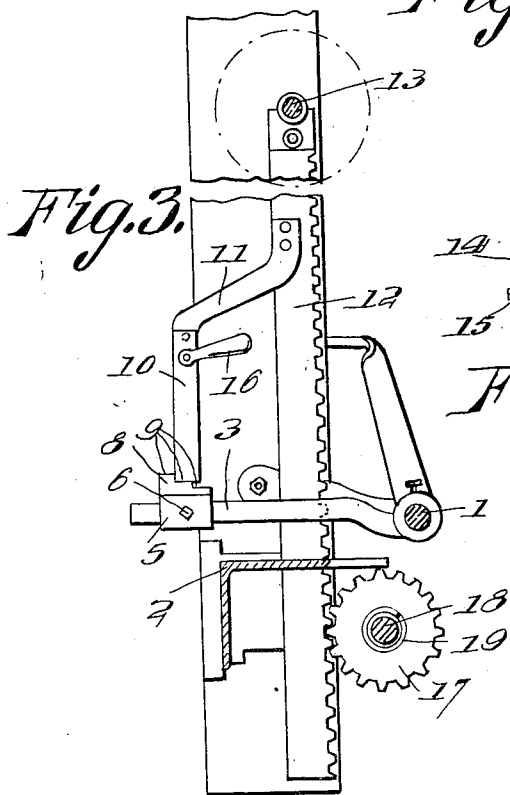


Fig. 3.

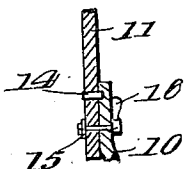


Fig. 5.

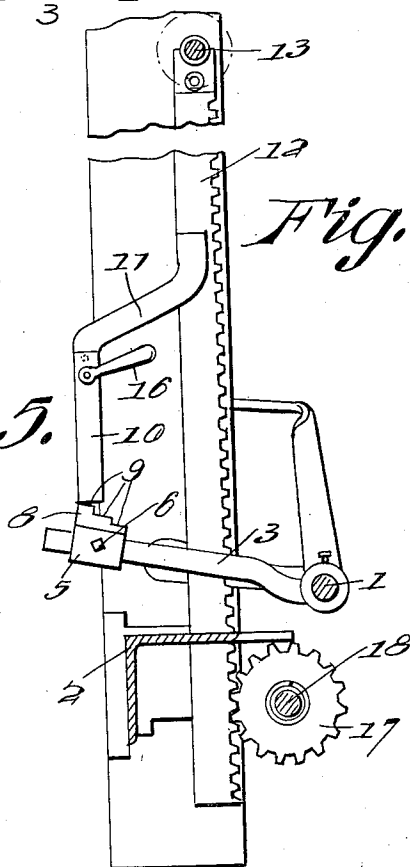


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN W. HERBERT, OF NATICK, RHODE ISLAND.

LOOM.

1,016,009.

Specification of Letters Patent.

Patented Jan. 30, 1912.

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To all whom it may concern:

Be it known that I, JOHN W. HERBERT, a citizen of the United States, residing at Natick, in the county of Kent and State of Rhode Island, have invented a new and useful Improvement in Looms, of which the following is a specification.

This invention pertains to certain new and useful improvements in looms, and relates more particularly to means for automatically stopping the loom when a predetermined quantity or amount of cloth has been wound on the beam.

The object of the invention is to generally improve and simplify devices of this type, and to provide simple, easily operated means whereby adjustment of the parts may be effected, so that the loom will be caused to stop when different quantities of cloth have been wound on the beam.

Further and other objects of the invention will be later set forth.

In the drawings, Figure 1 is a fragmentary perspective view of a loom, showing the present invention applied thereto. Fig. 2 is a rear side elevation of Fig. 1. Fig. 3 is a section taken on the line 3—3 of Fig. 2. Fig. 4 is a view similar to Fig. 3, but showing the parts in a different position, and Fig. 5 is a detail fragmentary sectional view.

In the drawings the usual knock-off rod of the loom is designated 1, being journaled in brackets carried by a rail 2 of the loom frame. An arm 3 is secured by means of set screws 4 to the knock-off rod 1 and at its outer arm has a socketed member 5 adjustably secured thereto by means of a set screw 6. The upper face or top portion of the member 5 is formed with an integral web 8, the top edge of which is formed with a series of steps 9, which steps are for engagement with the lower end of a leg 10, that is secured to the outer curved end of an arm 11, the latter being rigidly secured at its inner end to one of a pair of vertically movable rack bars 12, which rack bars are common to looms of a known type, in which the upper ends of the rack bars are formed with seats receiving the beam 13 of the cloth roll.

In order to rigidly and firmly connect the leg 10 to the arm 11, a pin 14, shown in Fig. 5 of the drawings, is secured in registering perforations formed in the leg 10 and arm 11, and a bolt 15 is passed through other

registering perforations formed in leg 10 and arm 11, and is drawn tight to firmly clamp the arms together by means of a nut formed with a lever handle 16, as depicted in Fig. 5 of the drawings.

As above stated the rack bars 12 which support the cloth beam 13 are common to a certain type of loom, and the rack bars in such loom are operated by gears 17, the gears being mounted on a shaft 18, the shaft being surrounded by coil springs 19, which have their ends fastened to the shaft, and also to a stationary point 20 on the loom frame, as clearly depicted in Fig. 1, of the drawings. The purpose of the coiled springs is to take up the weight of the cloth roll, as the diameter of the same increases when the cloth is being wound thereon.

It will be understood that the knock-off rod 1 has connection with the loom stopping device, and that by moving the member 5 along the length of the arm 3, which is carried by the knock-off rod, that the steps 9 may be adjusted so as to aline a low or high or intermediate step with the lower end of the leg 10, which is carried by one of the rack bars 12. As the cloth is wound on the beam 13 the weight thereof increases, and is taken up by the springs 19 on the shaft 18, which bears the gears 17, the continued downward movement of the rack bars carrying the leg 10 therewith until the lower end of the leg engages with one of the steps 9 of the arm 3, whereupon the arm in its continued downward movement will depress the arm 3 to rock the knock-off rod 1, thereby stopping the loom.

From the above it will be seen that the adjustment may be easily and positively effected, and that by providing a large number of steps 9 various ranges of adjustments of the diameters of the cloth rolls may be obtained.

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

1. In a loom in combination with vertically moving means for supporting the cloth beam, and the knock-off rod, an arm carried by said means and depending therefrom, a leg removably carried by said arm, an arm secured to the knock-off rod, and a member adjustable along the length of said last named arm and being formed with an up-

wardly extending web, the top edge of which web is formed with a series of steps to engage with the lower end of said leg. one of the steps of said element to thereby 10 rotate said rod.

2. In combination with the knock-off rod of a loom, and the vertically moving means for supporting the cloth beam, an arm on the rod, a stepped element adjustable along the length of the arm, and means carried by said first named means to engage a selected In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. HERBERT.

Witnesses:

ADA E. HAGERTY,
J. H. MILLER.