

No. 607,360.

Patented July 12, 1898.

A. J. GILLET & G. RUTTER.

LOOM.

(Application filed May 17, 1897.)

(No Model.)

Fig. 1.

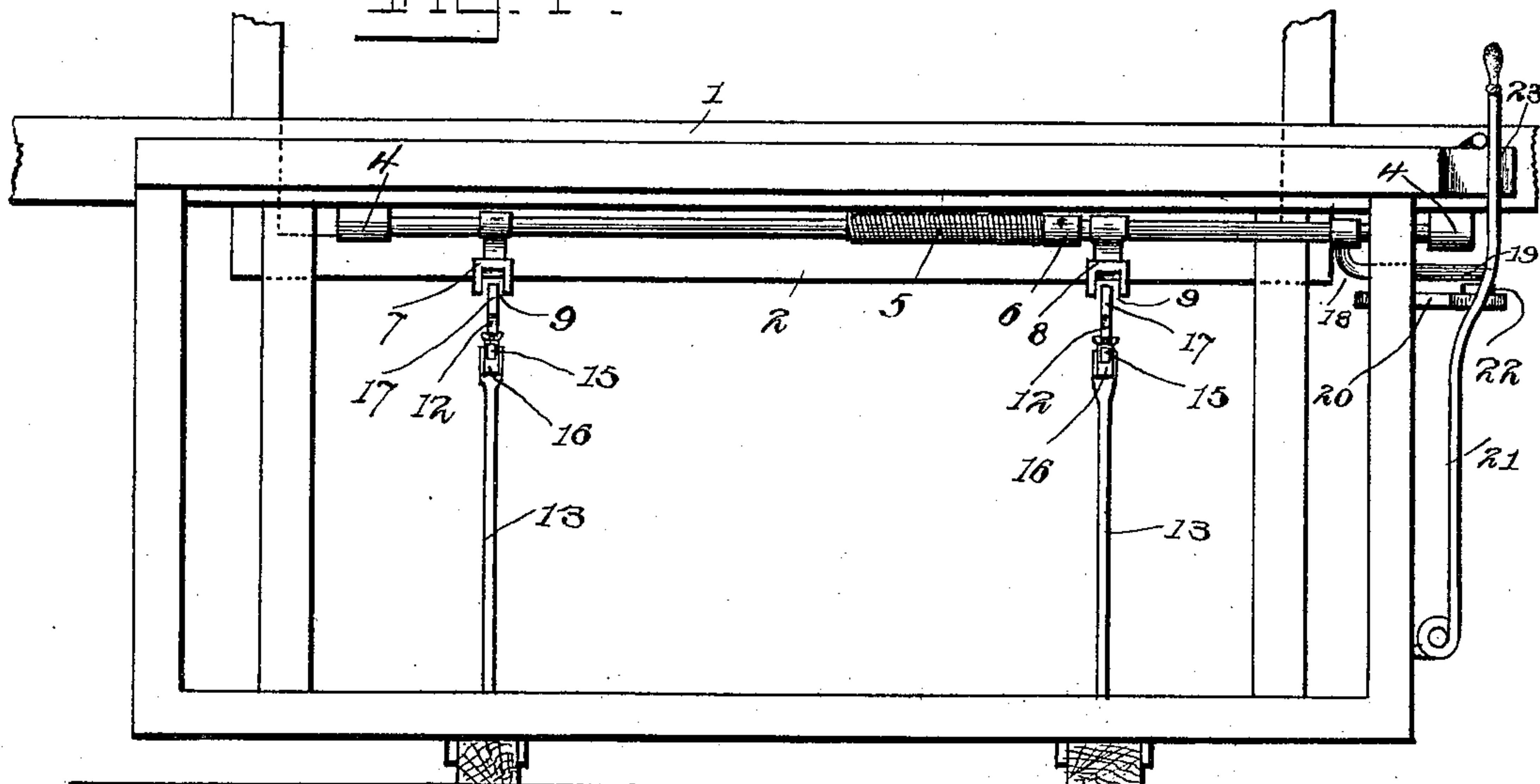
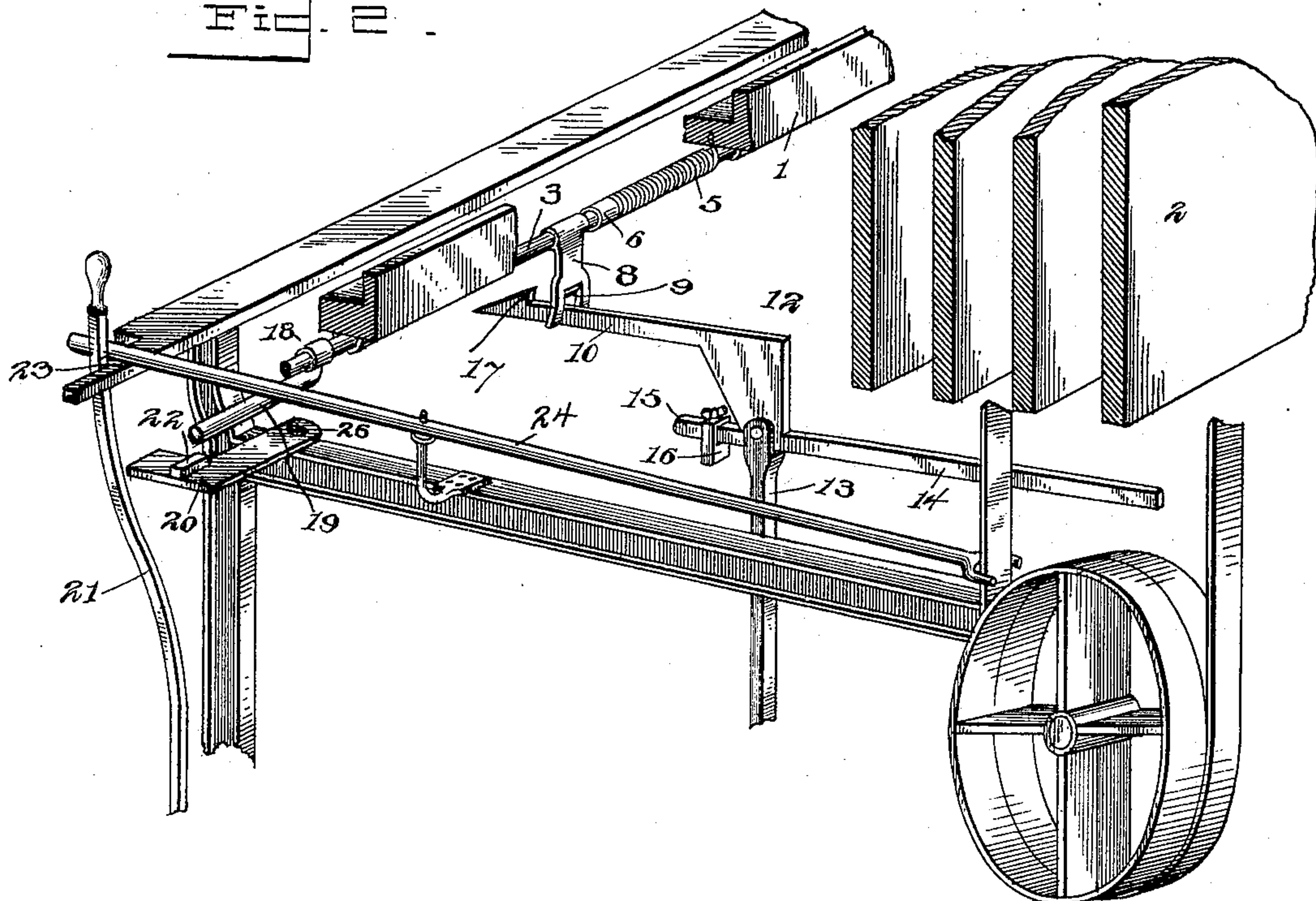


Fig. 2.



Witnesses:  
Fenton S. Belt,  
J. B. Wilson.

Inventors:  
A. J. Gillet, and  
G. Rutter,  
by A. B. Wilson,  
Attorney.



# UNITED STATES PATENT OFFICE.

ALOYSIUS J. GILLET AND GEORGE RUTTER, OF FALL RIVER,  
MASSACHUSETTS.

## LOOM.

SPECIFICATION forming part of Letters Patent No. 607,360, dated July 12, 1898.

Application filed May 17, 1897. Serial No. 636,960. (No model.)

*To all whom it may concern:*

Be it known that we, ALOYSIUS J. GILLET and GEORGE RUTTER, citizens of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have  
5 invented certain new and useful Improvements in Looms; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others  
10 skilled in the art to which it appertains to make and use the same.

Our invention has relation to improvements in looms; and the object is to provide a means for automatically stopping the loom when the  
15 harness fails; and to this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

20 In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a front elevation of the lathe mechanism of a loom with our attachment applied thereto. Fig. 2 is a detail perspective  
25 view of the belt-shifting mechanism.

1 represents the lathe, which is of the ordinary construction, and 2 represents the harness, which is likewise of the usual construction and together with the lathe operates in  
30 the usual manner.

3 represents a longitudinal shaft journaled in the brackets 4 4 on the under side of the lathe, and 5 represents a spiral spring encompassing said shaft and having one end fixed  
35 to a collar 6, adjustably secured to said shaft, and its opposite end fixed to the under side of the lathe.

7 and 8 represent two parallel depending  
40 arms fixed on the shaft 3 and provided at their lower ends with vertical guide-slots 9 9, which receive the horizontal arms 10 10 of the bell-crank levers 12 12, fulcrumed in the stationary brackets 13 13. The rear horizontal arms  
45 14 14 of these bell-crank levers extend rearwardly under the loom-harness, as shown.

15 represents a short arm on the forward end of one of the arms 14, and 16 represents a counterbalance-weight suspended from said

arm 15 to normally depress the front arms 10 50  
10 out of the path of the slotted arms 7 8 on the shaft 3.

17 17 represent integral pawls on the free ends of the arms 10 10, which extend through the guide-slots 9 9, and when the rear arms 55  
of the bell-crank levers are depressed the front arms are consequently thrown upward, and as the lathe goes forward the pawls engage the arms 7 8 and hold them, so that the further forward movement of the lathe causes the  
60 shaft 3 to rotate or oscillate in its bearings.

18 represents a radial dog secured to one end of the shaft 3, and its outer end terminates in a horizontal arm 19, and when said shaft is oscillated, as above described, this  
65 arm 19 is turned downward, so as to extend below the shaft 3.

20 represents a bar pivoted to the loom-frame on the pivot-screw 26, with its forward end adapted to abut against the contiguous  
70 face of the spring-actuated trip-lever 21.

24 denotes the belt-shifting lever, fulcrumed in the usual manner on the loom-frame and its forward end projects across the path of the trip-lever 21.  
75

22 represents a lug on the upper face of the pivoted bar 20 and which is normally out of the path of the arm 19 on the radial dog 18; but when the shaft 3 is oscillated the lug 22 projects into the path of said dog, which  
80 strikes it and carries it forward with it.

When the trip-lever 21 is set to hold the usual driving-belt on the tight pulley to operate the loom, its upper end is held in position by a notch 23 in the frame, and when the  
85 bar 20 is moved forward by the action of the dog on the shaft 3 the spring-actuated trip-lever is forced out of the retaining-notch 23, and under the influence of its spring carries the shifting-lever 24 with it, thus shifting the  
90 driving-belt over to the loose pulley and instantly stops the loom.

In operation the loom works in the usual manner; but should the harness fall below its working position, caused by its supporting  
95 means (not shown) breaking, the defective harness will rest on the rear arms 14 of the bell-crank levers, throwing their forward ends



17 up to engage the depending arms 7 and 8 on the shaft 3, causing it to oscillate and depress the dog 18, which as it is carried forward by the lathe strikes the lug 22 on the sliding bar, which in turn forces the trip-lever 23 out of its retaining-notch, thereby releasing it, so as to throw the lever 24 and shift the driving-belt, as above described.

Although we have specifically described the construction and relative arrangement of the several elements of our invention, we do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of our invention without departing from the spirit thereof.

It will thus be seen that the dog 18 has a double movement when in action, as it describes the arc of a circle to carry its free end into the path of the lug 22 at the same time that it is being carried forward by the lathe, and thereby trip the lever 23, as above described.

Having thus fully described our invention,

what we claim as new, and desire to secure by Letters Patent of the United States, is—

A loom comprising the heddle-harness, the lathe and the belt-shifting lever, an oscillating shaft carried by said lathe, a dog fixed to said shaft, and a slotted arm depending from said shaft, in combination with a bell-crank lever fulcrumed in the loom-frame, and provided with one arm projecting into the path of the said slotted arm, and the other arm projecting into the path of the heddle-harness, and a pivoted bar, in operative contact with the trip-lever, and provided with a lug projecting into the path of the dog on the oscillating shaft, substantially as shown and described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

ALOYSIUS J. GILLET.  
GEORGE RUTTER.

Witnesses:

EDWARD KORZENESKI,  
WM. KILEZ.