

No. 695,890.

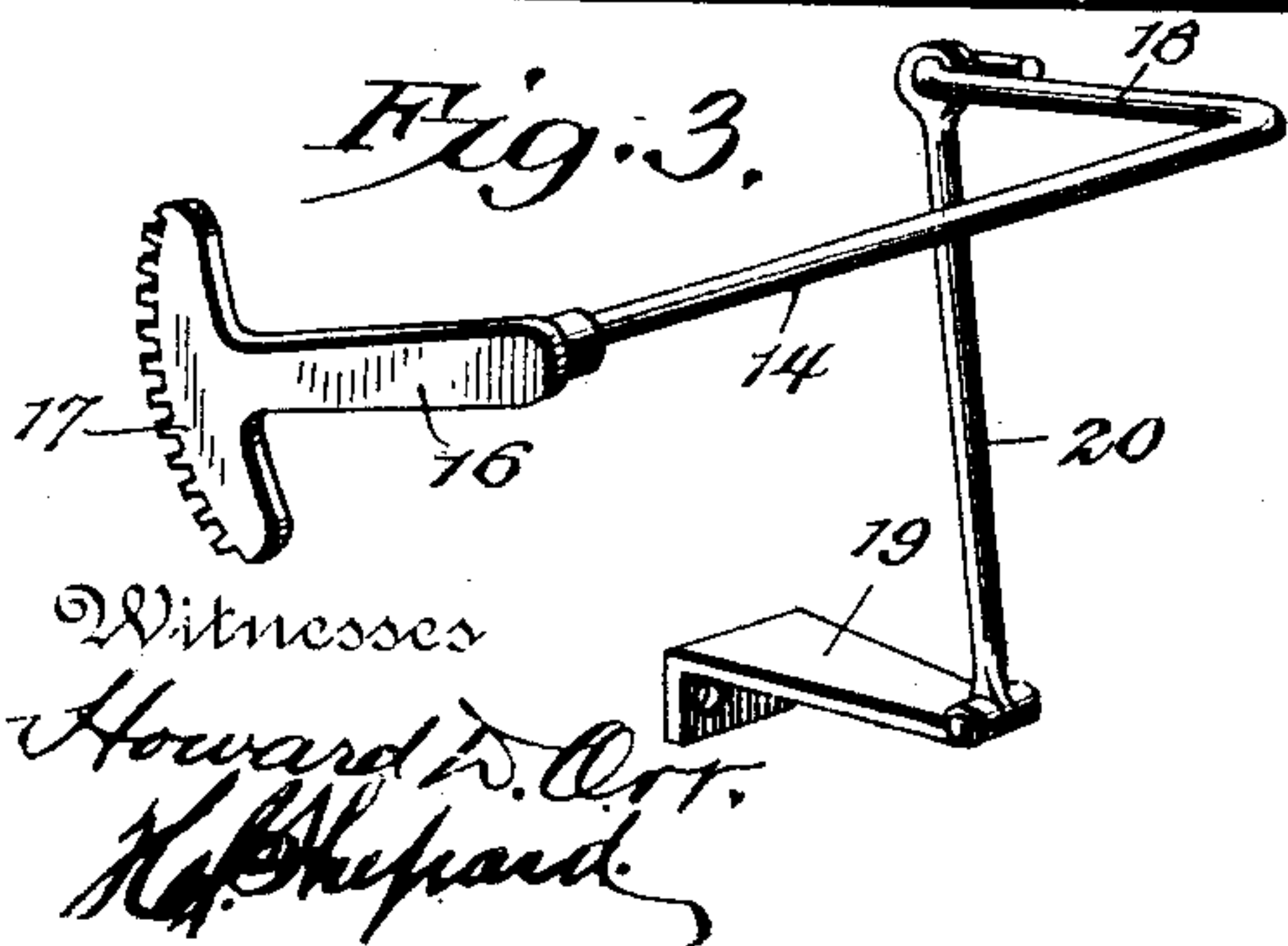
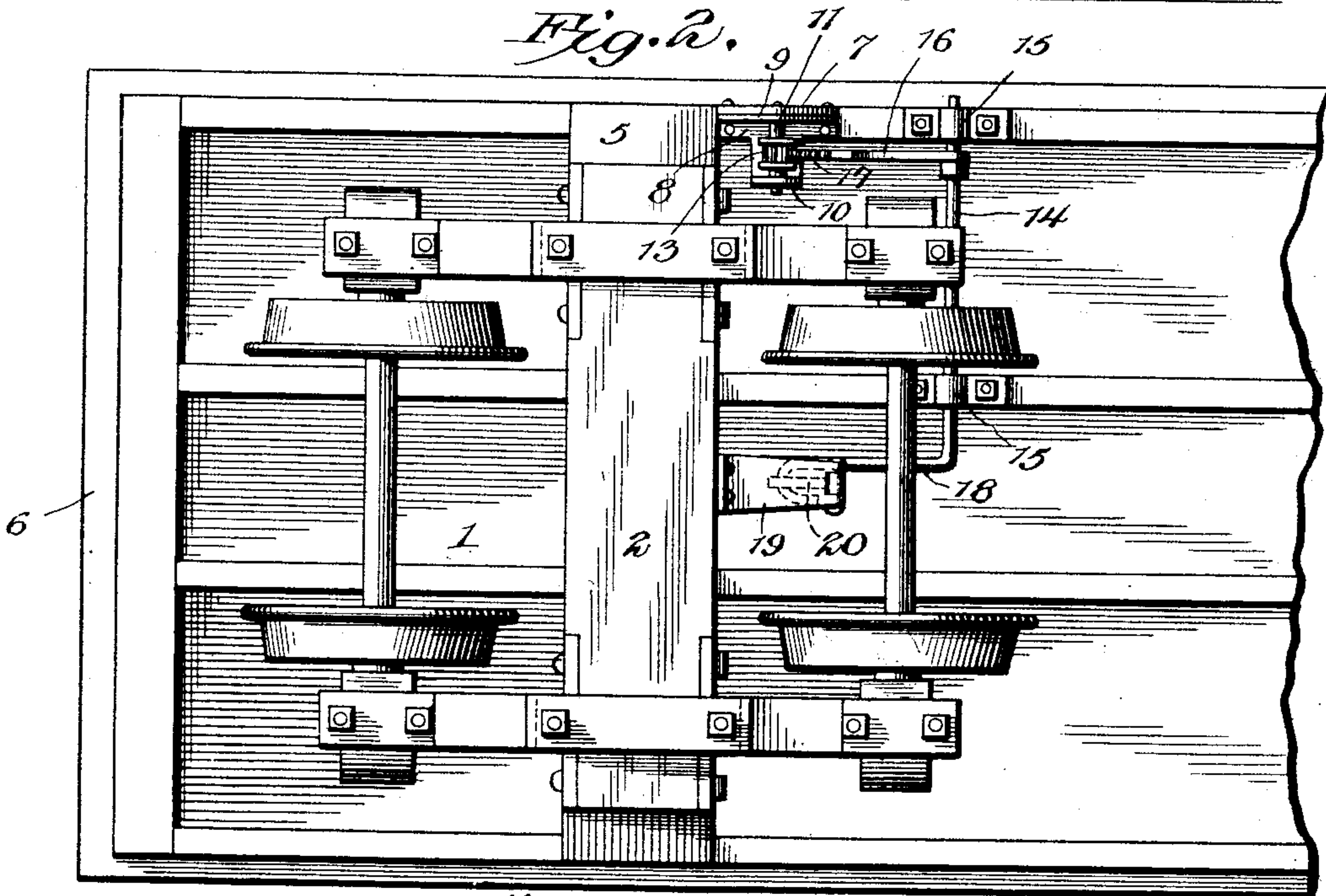
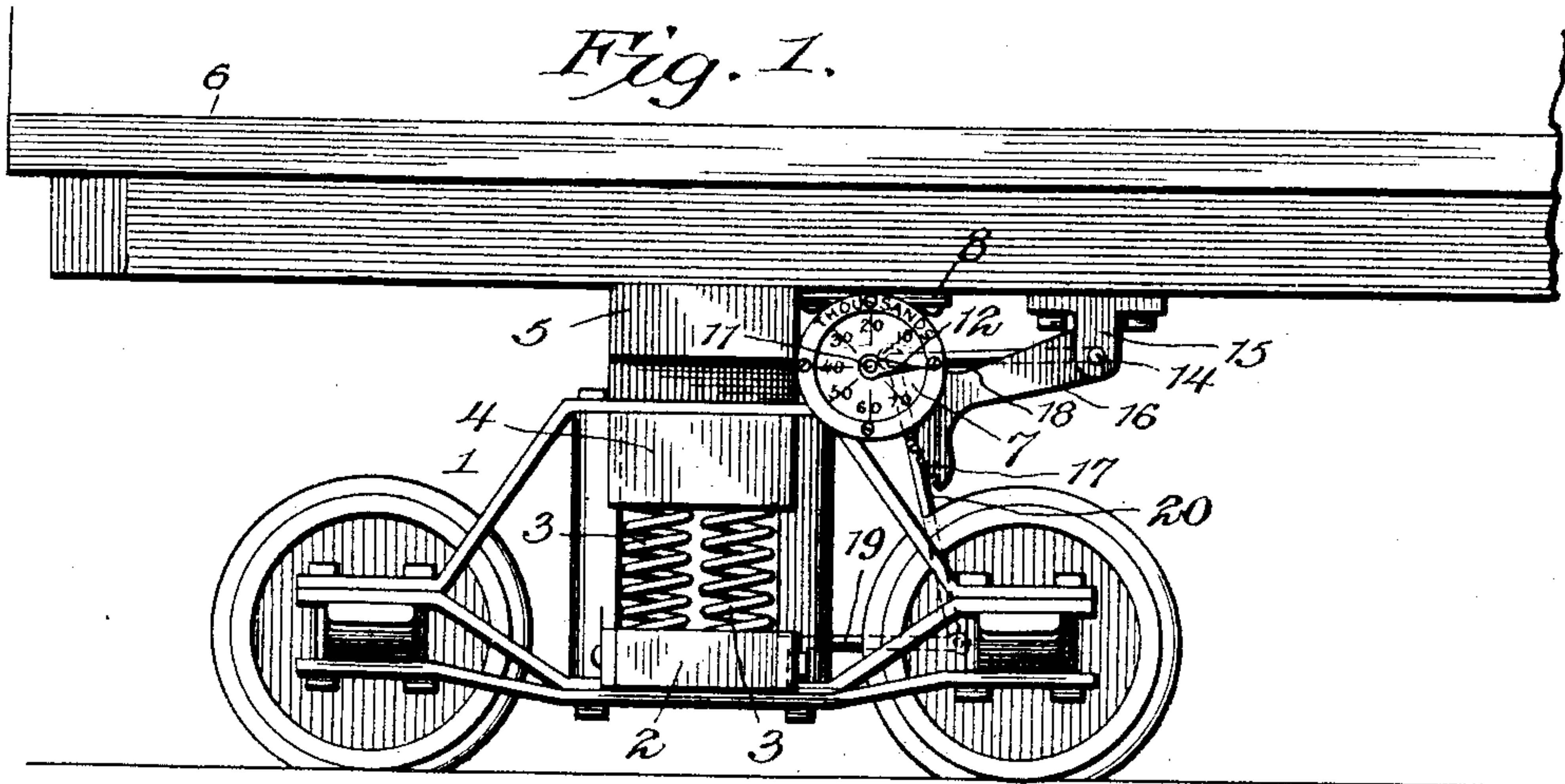
Patented Mar. 18, 1902.

M. F. SINCLAIR.

LOAD INDICATOR.

(Application filed Nov. 18, 1901.)

(No Model.)



Witnesses
Howard D. Art.
H. Shepard

Inventor,
Millard F. Sinclair,
By *E. G. Siggers*
Attorney

UNITED STATES PATENT OFFICE.

MILLARD F. SINCLAIR, OF OKOLONA, MISSISSIPPI, ASSIGNOR OF ONE-HALF
TO MACK F. HARBOUR, OF OKOLONA, MISSISSIPPI.

LOAD-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 695,890, dated March 18, 1902

Application filed November 18, 1901. Serial No. 82,743. (No model.)

To all whom it may concern:

Be it known that I, MILLARD F. SINCLAIR, a citizen of the United States, residing at Okolona, in the county of Chickasaw and State of Mississippi, have invented a new and useful Load-Indicator, of which the following is a specification.

This invention relates to load-indicators, and is particularly adapted for application to freight-cars, so as to plainly and accurately indicate the weight of the load thereon to prevent overloading of the car and also to dispense with track-scales. It is furthermore designed to mount the indicating-dial upon the body of the car in such a position that it may be conveniently read when standing upon the ground and also to provide improved means for actuating the indicating mechanism by the downward movement of the car-body under the influence of the load thereon.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of a portion of a railway-car having the improved indicator applied thereto. Fig. 2 is an inverted plan view thereof. Fig. 3 is a detail perspective view of the operative connection between the spring-plank of the adjacent car-truck and the indicating device. Fig. 4 is a detail perspective view of the bracket for the support of the indicator-dial.

Like characters of reference designate corresponding parts in all the figures of the drawings.

To illustrate the application of the invention, there has been shown an ordinary car-truck 1, having the usual spring-plank 2, the coiled springs 3, mounted upon the spring-plank, and the truck-bolster 4, supported upon the springs, so as to yield therewith.

Upon the truck-bolster is mounted an ordinary body-bolster 5, which in turn supports the bottom or bed 6 of the car. It will of course be understood that these parts are common and well known and have been shown merely to illustrate the mounting of the present indicator and the manner of actuating the same.

In carrying out the present invention there is provided a dial 7, which is hung from one of the side sills of the bed of the car and located adjacent to one of the car-trucks. For the support of this dial there is provided a bracket consisting of an attaching-plate 8, which is secured to the under side of the sill and is provided with front and rear pendent arm portions 9 and 10, the dial being carried upon the outer side of the front arm. A shaft or journal 11 has its opposite ends mounted in the arms of the bracket, and a pointer or indicator 12 is carried by the outer end of the journal and coöperates with the dial. Upon an intermediate portion of the shaft or journal there is provided a pinion 13.

For actuating the pointer or indicator there is provided a rock-bar 14, which is journaled in suitable bearings 15 upon a pair of the sills of the bottom or bed of the car. Upon the outer end portion of the rock-bar there is provided a crank-arm 16, having a segmental gear or arcuate rack 17, carried by its outer end and in mesh with the pinion 13. The opposite end of the rock-bar is provided with a crank-arm 18, extending in approximately the same direction as the crank 16, or, in other words, toward the body-bolster. A suitable laterally-projected bracket 19 is carried by the spring-plank 2, which is relatively fixed with respect to the car-truck, and a link 20 has its opposite ends pivotally connected to the bracket and the inner crank-arm 18 of the rock-shaft.

It will be understood that as the car is being loaded the weight of the load will force the car-body downwardly against the resistance of the springs 3, whereby through the medium of the link 20 the rock-bar will be rocked and the segmental gear or rack 17, meshing with the pinion 13, will actuate the shaft 11, and thereby turn the pointer or in-

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indicator which coöperates with the dial to indicate the weight of the load upon the car-body.

From the foregoing description it is apparent that the present indicator may be applied to any ordinary railway-car without requiring any change in any of the parts thereof and without interfering with the yielding movement of the car-body upon the trucks. Also in order that the car-truck may turn upon its king-bolt without breaking any of the connecting parts of the indicator the connection between the link 20 and the crank-arm 18 should be sufficiently loose to prevent binding of the link upon the crank-arm when the car is rounding a curve.

What I claim is—

The combination with a car-truck having a spring-plank, and a car-body yieldably supported upon the truck, of a load-indicator

comprising a dial hung from the bottom of the car and at one side thereof, a rotatable pointer or index for the dial, a bracket connected to the car and supporting the dial, a pinion journaled in the bracket and operatively connected to the pointer or index, a rock-shaft mounted upon the bottom of the car and provided at opposite ends with crank-arms, a segmental rack or gear carried by one of the crank-arms and in mesh with the pinion, a bracket carried by the spring-plank, and a link connection between the bracket and the other crank-arm.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MILLARD F. SINCLAIR.

Witnesses:

Z. T. HARPER,
H. BEALL.