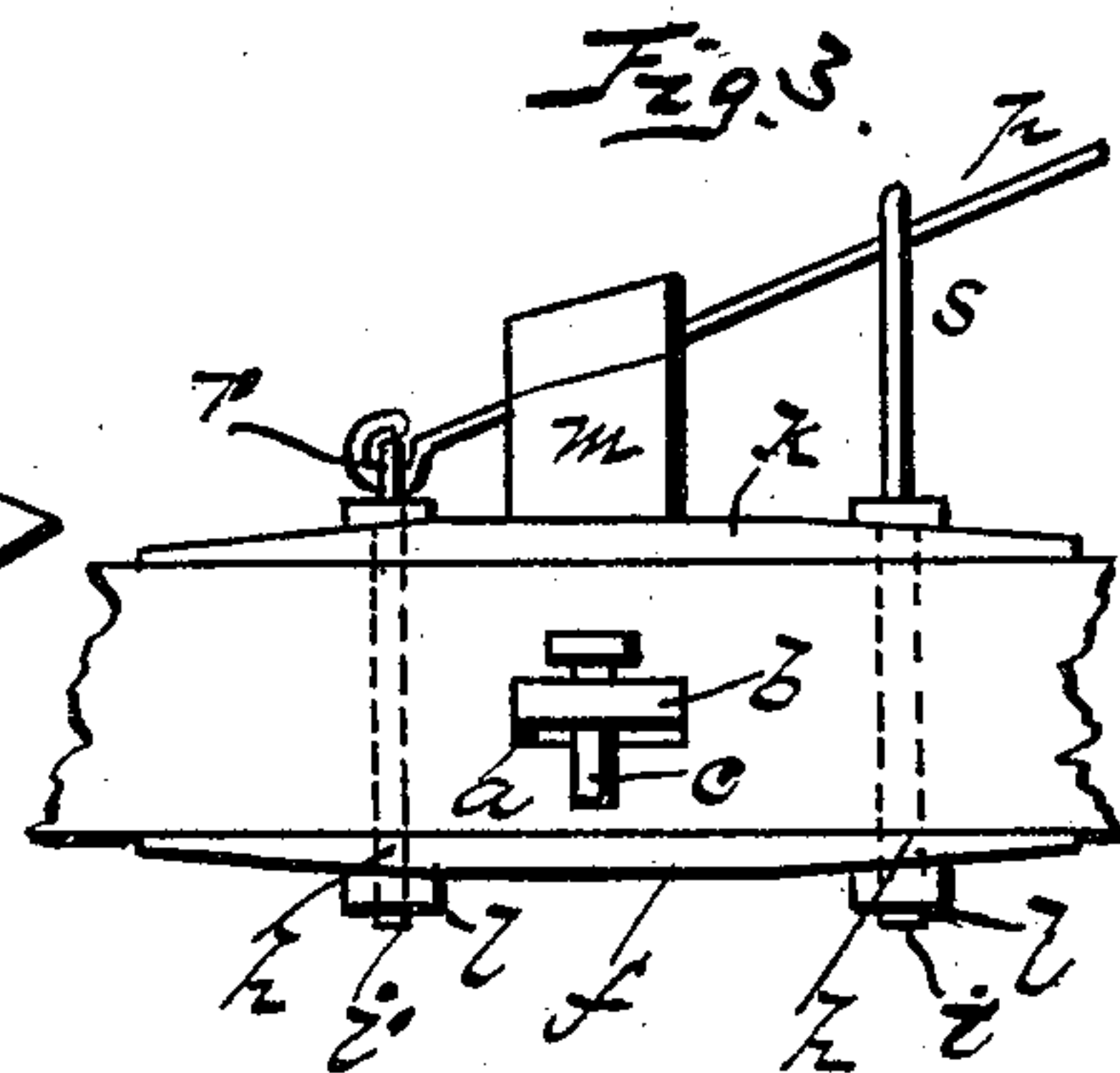
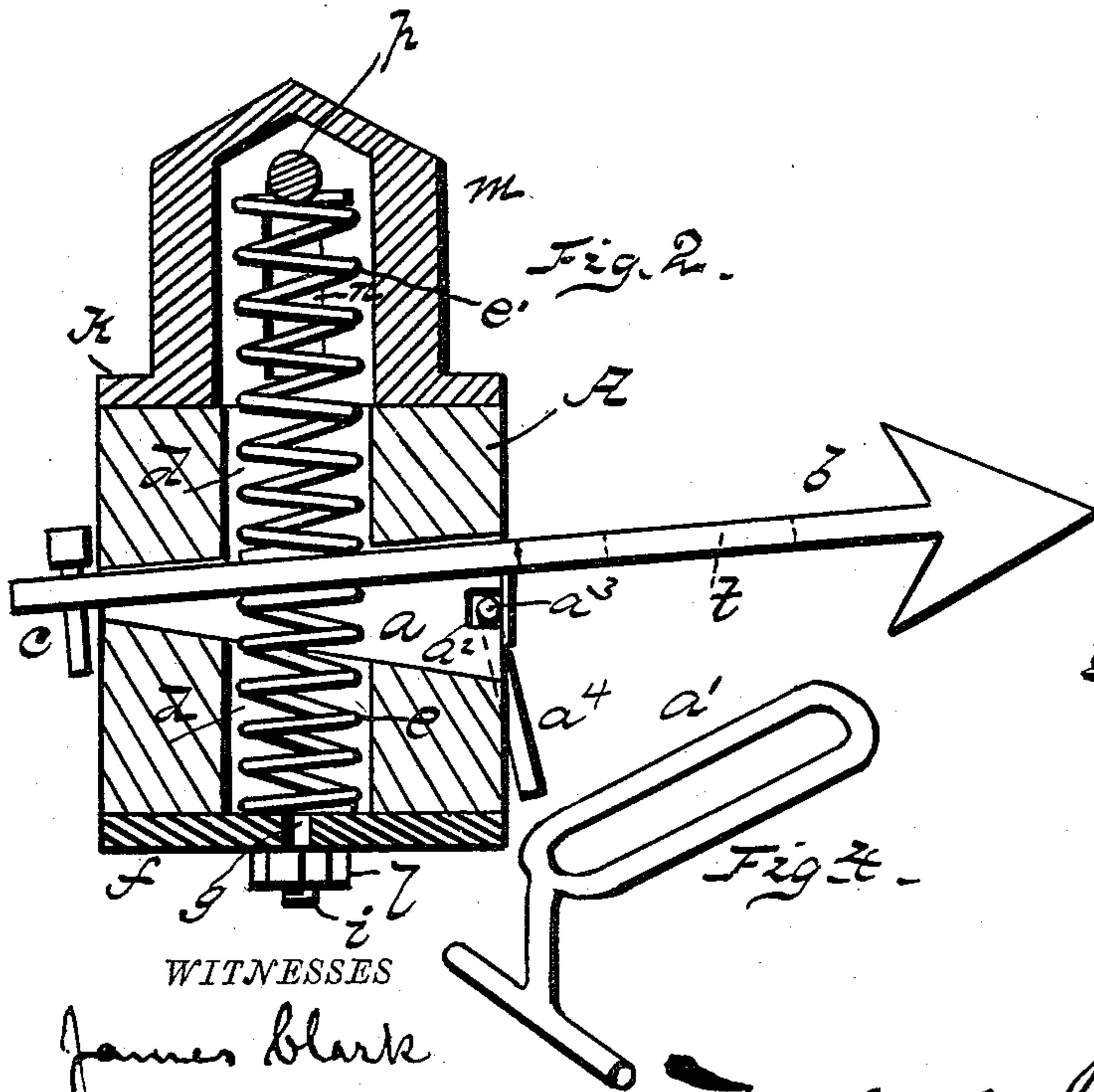
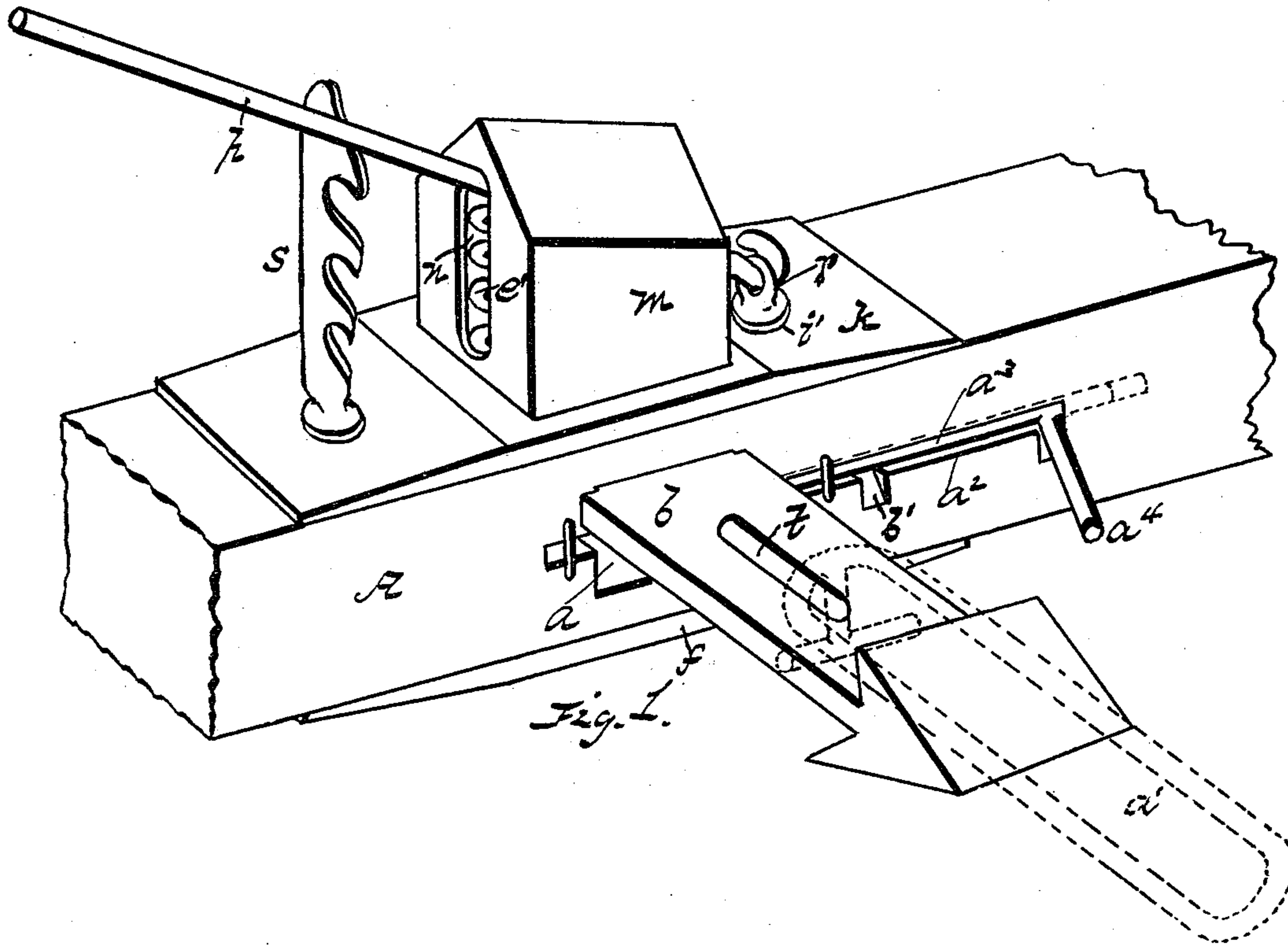


(No Model.)

J. H. DUNN.
CAR COUPLING.

No. 365,172.

Patented June 21, 1887.



WITNESSES
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JAMES H. DUNN, OF QUINNIMONT, WEST VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 365,172, dated June 21, 1887.

Application filed March 23, 1887. Serial No. 232,125. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. DUNN, a citizen of the United States, residing at Quinnimont, in the county of Fayette and State of West Virginia, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in car-couplings; and it consists in the novel construction and arrangement of parts, as will be hereinafter fully explained.

The annexed drawings, to which reference is made, illustrate my invention, in which—

Figure 1 represents a perspective view of my device. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a rear view, and Fig. 4 is a perspective view, of the T-link.

Referring by letter to the accompanying drawings, A designates the end cross-beam of a car, which is provided with a flaring slot, *a*, in which is arranged the arrow-head draw-bar *b*, that is securely attached thereto by a pin, *c*, in the rear of the cross-beam aforesaid. This cross-beam is also provided with vertical recesses *d*, which communicate with the flaring opening, and in which are arranged coiled springs *e e'*, the former of which is beneath the draw-bar and bears upwardly against the under side thereof, while the opposite or lower end of said spring has its bearing on a plate, *f*, having a small central perforation, *g*, to let out any water which may get in the recesses. This lower plate has end perforations, *h*, to admit bolts *i i'*, by which it and an upper plate, *k*, is secured to the cross-beam by nuts *l*. This upper plate is provided with a housing, *m*, for the upper spring, and is a part of the upper plate. The same is also provided with slots *n n* on each side, in which plays a hand-lever, *p*, above the upper spring in the housing. This lever is connected at one end to an eye, *r*, in the bolt *i'*, thus forming a hinged joint at this end, and the free end thereof receives constant pressure from the upper spring, keeps it in an elevated position when not in engagement with a rack-bar, *s*, which latter is an extension of the bolt *i*, and serves to hold the lever down, for a purpose presently explained.

The draw-bar is provided with a central slot, *t*, in which it is designed to insert the T-head of an angular coupling-link, *a'*, which is designed to be used only when my coupler comes in contact with the ordinary coupler having the common coupling-pin, whereby the two couplers can be readily connected. In the face of the cross-beam is a slot, *a''*, in which is arranged a sliding bar or pin, *a'''*, having a handle, *a''''*, and said slot opens at its inner end into the flaring recess in the cross-beam.

Having described the different parts of which my invention is composed, I will now set forth its operation. In coupling the cars to one another the free end of the hand-lever is pressed, in order to bring the heads of the draw-bars of the opposite cars on a line with one another, and are engaged by the arrow-heads, the lever being engaged by the rack-bar, and said heads are kept securely engaged by the pressure of the springs on the draw-bars. It will be seen that the device is a self-coupler when the cars come together. In uncoupling the cars the hand-lever is released from the rack-bar and the lower spring raises the draw-bar, and the arrow-heads will readily become disengaged from one another, after which the lever is again pressed down to engage the rack-bar in order to be in readiness for another coupling. When cars of different heights are coupled, the sliding bar or pin is brought into play for the purpose of securely binding the arrow-heads to one another. Thus, if it is necessary to press the draw-bar downwardly on the opposite car, which lever is pressed very low on the rack-bar, the slide is then moved inwardly and laterally over said bar preventing it from raising, and the handle of said slide is turned into a notch, *b'*, thus preventing it sliding back of its own accord. At the same time the opposite slide on the opposite car should be moved under the opposite draw-bar, thereby firmly uniting the arrow-heads. These sliding bars or pins are designed only as auxiliary to the draw-bar springs in case the same should weaken, and to keep the arrow-head draw-bars from making too great variation when cars of different height are coupled.

In coupling cars of different heights one of

the draw-bars is permitted to rise by the pressure of its lower spring when the lever is released from its rack-bar, and the opposite draw-bar is lowered by pressure on its lever, forcing it down as far as possible, thus bringing the arrow-heads on a line with one another, ready for coupling, and after being so coupled the sliding pin of the top draw-bar is forced over it, or vice versa, as the case may be, thus aiding the springs in their pressure upon said draw-bars at same time the levers remain in the position above stated.

When it is desired to couple my device with the ordinary draw-head and coupling-pin, the angular T-head link a' is used by inserting the T-head in the slot t in the draw-bar and coupling the link portion with the ordinary coupling-pin. It will be further observed that the coupling of the cars is accomplished by the engine forcing the two opposite cars together, thus not requiring the attendance of a person for this purpose, and it is durable, not liable to get out of order, and cheap to manufacture.

What I claim is—

1. In a car-coupling, the beam having the flaring opening, and vertical cavities adapted to receive the draw-bar and springs, the upper and lower plates, and the operating-lever and rack-bar, substantially as and for the purpose set forth.

2. In a car-coupling, the combination of the recessed plates, lower plate, upper and lower springs, lever p , rack-bar, sliding bar, and arrow-head draw-bar, substantially as described.

3. The combination, in a car-coupler, of the draw-bar provided with the slot, and the T-head link, adapted to operate as described, and for the purpose set forth.

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

JAMES H. DUNN.

Witnesses:

WM. H. PARRACK,
T. G. MANN.