(No Model.)

J. A. MOLSEED & J. FINCH.

CAR COUPLING.

No. 460,792. Patented Oct. 6, 1891.

Fig. 1.

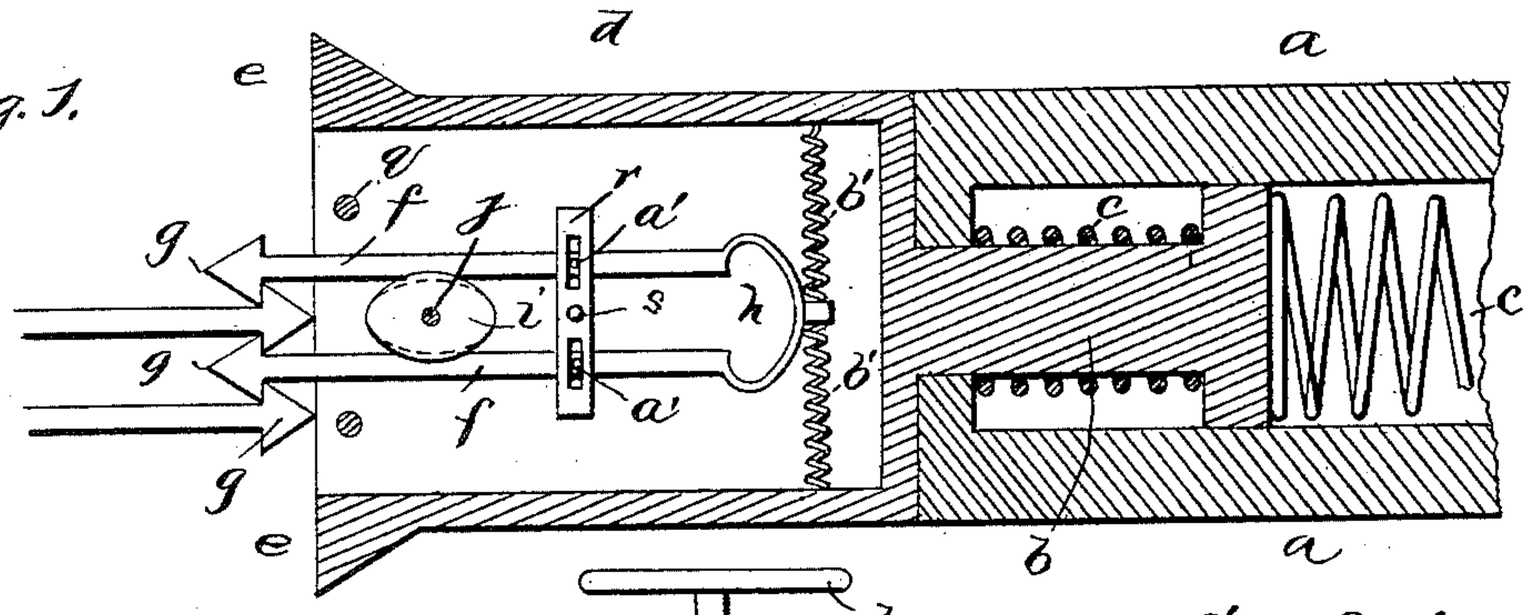

Fig. 2.

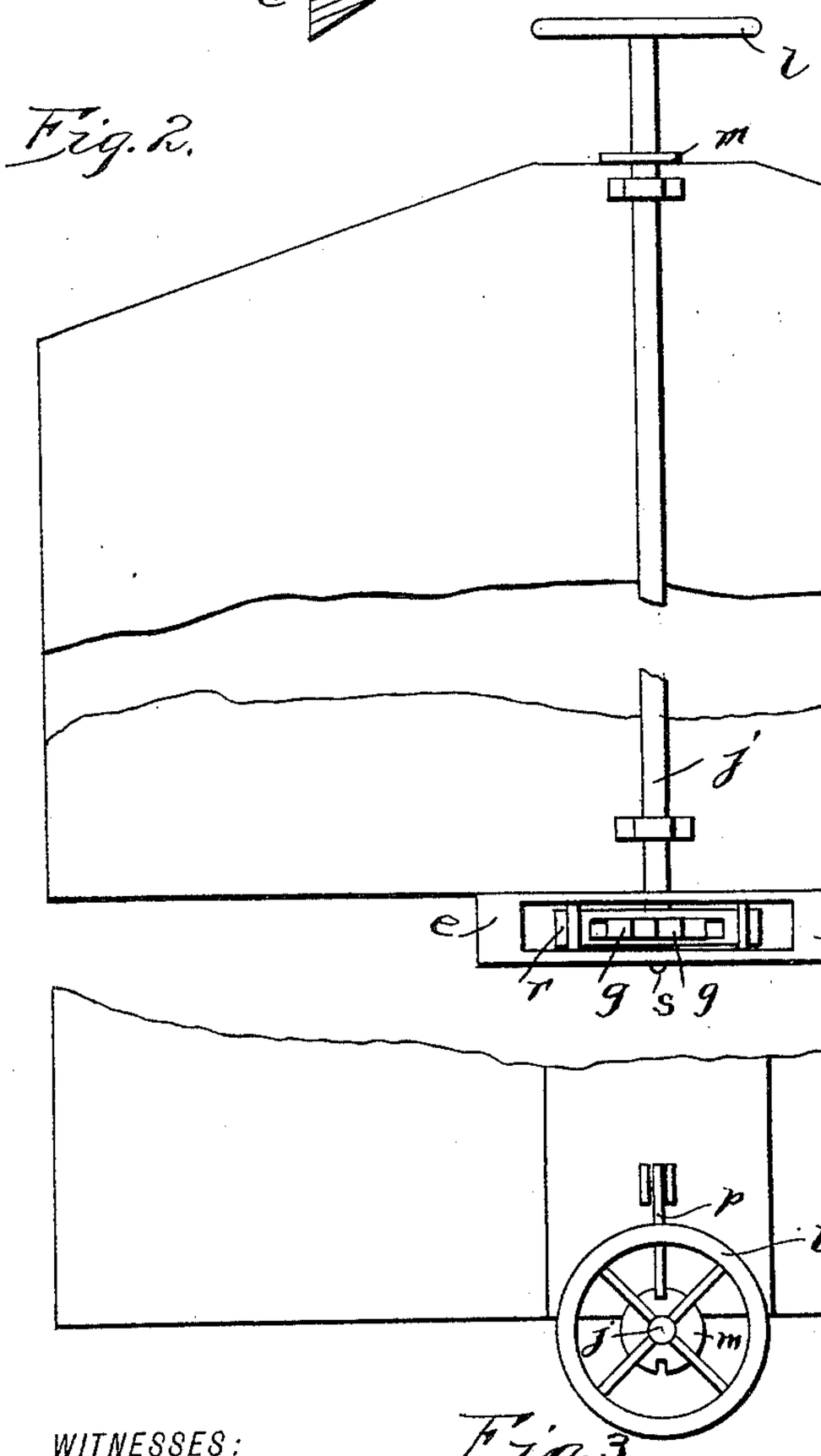

Fig. 4.

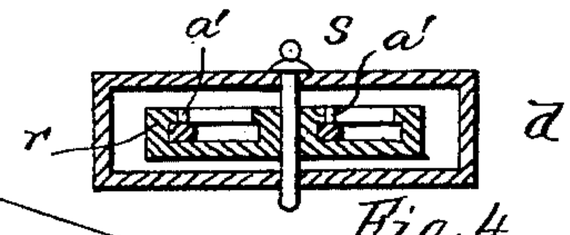

Fig. 3.

WITNESSES:

E. C. Duffy

Chas. M. Werle

INVENTORS:

J. A. Molseed and James Finch BY O. E. Duffy

ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES A. MOLSEED AND JAMES FINCH, OF VAIL, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 460,792, dated October 6, 1891.

Application filed April 11, 1891. Serial No. 388,447. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. MOLSEED and JAMES FINCH, of Vail, in the county of Crawford and State of Iowa, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in car-couplers; and it consists in certain novel features of construction and in combinations of parts more fully described hereinafter, and particularly pointed out in the claim.

Referring to the accompanying drawings, Figure 1 is a longitudinal horizontal sectional view of the coupler. Fig. 2 is an end view. Fig. 3 is a detail view showing the means for locking the operating-shaft to hold the coupling-jaws in position. Fig. 4 is a cross-section of coupling-head.

In the drawings, reference-letter *a* indicates the draft-timbers of the car.

b indicates the draw-bar, extending between the draft-timbers and provided with cushioning-springs *c* therein, of any suitable ordinary construction. The coupling-head *d* is rigid on the outer end of the draw-bar. This coupling-head is hollow and open at its outer end, and is provided with the buffers *e* on each side of said open outer end. The two coupling-levers and jaws *f* are located in the coupling-head substantially parallel, although they need not be parallel to perform their functions, and I do not limit myself to having them parallel. These two levers are preferably of the same length, and the outer end of each is provided with a head *g*, beveled or pointed, as shown, and forming two shoulders on opposite sides of the ends of the lever. The outer ends of these two levers are yieldingly held together by means of curved spring *h*, formed integral with or at its ends secured to the rear ends of said levers, so that when the outer ends of the levers are drawn apart the spring will be contracted. This spring, if desired, is formed integral with and in continuation of the two levers, so that they really are all in one piece with the spring. Elongated cam *i* is located between free ends of the levers upon the vertical shaft *j*, journaled in the coupling-head and extending up to the top of the car, where it is provided with a suitable handle *l*. By this means the coupling-levers can be forced and held apart for any desirable purpose, such as to open coupler. At the top of the car this vertical shaft is provided with the wheel or hub *m*, having a couple of notches *n* therein, and a swinging lever or frog *p* is pivoted to the car to drop into said notch and hold the shaft against rotation. These notches are so located as to come opposite the lever or frog, or in any position so that the lever or frog can drop thereinto only when the cam is holding the locking or coupling levers open. By this construction the coupling-levers can be held open.

Suitable stop-pins *q* are provided in the coupling-head to limit the lateral swing of the coupling-levers. The coupling-levers are secured in the coupling-head to swing together and from a central pivot directly in line to draft by means of the transverse block *r*, mounted in the coupling-head, or a central vertical pivot *s*, directly in line of draft from the center of the draw-bar and draft-timbers, the ends of the said pivoted block being slotted horizontally and longitudinally and the two coupling-levers passing through the slots, so as to allow the coupling-levers to swing therein and close an opening, and each coupling-lever is provided with lugs *a'*, projecting into slots in the upper and lower sides of said pivoted block, as shown. These lugs transmit the draft from the coupling-levers to the swinging block. By reason of this pivotal block all the draft, whether on one or both levers, is transmitted directly to the longitudinal center of the coupling-head. The coupling-levers are yieldingly held in their normal central position by suitable means, such as spring *b'*, secured to a lug extending from the spring which actuates the coupling means. These coupling devices possess many advantages. The two heads when coupled are united by the coupling-levers, as shown in Fig. 1, and the heads are uncoupled by opening one side of coupling-levers by its cam.

Evidently various changes might be made

in the form, arrangement, and constructions of the parts herein described without departing from the spirit and scope of this invention. Hence we do not wish to limit ourselves to the particular construction herein set forth; but

What we claim is—

The combination of the hollow coupling-head, the two coupling-levers therein, the spring to hold them together, means to hold the coupling-levers in their normal position in the head, the pivotal block upon which said levers are mounted, and the cam to open the levers, carried by the shaft, substantially as described.

In testimony that we claim the foregoing as our own, we affix our signatures in presence of two witnesses.

JAMES A. MOLSEED.
JAMES FINCH.

Witnesses as to J. A. Molseed's signature:
THOS. FITSGIBBONS,
A. R. LEADLEY.
Witnesses as to J. Finch's signature:
C. M. WERLE,
O. E. DUFFY.