

Stillman, & Wesley Thorpe's
shuts
Improved Car Coupling.

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PLATE 1.

PATENTED

FEB 18 1868

Fig. 1.

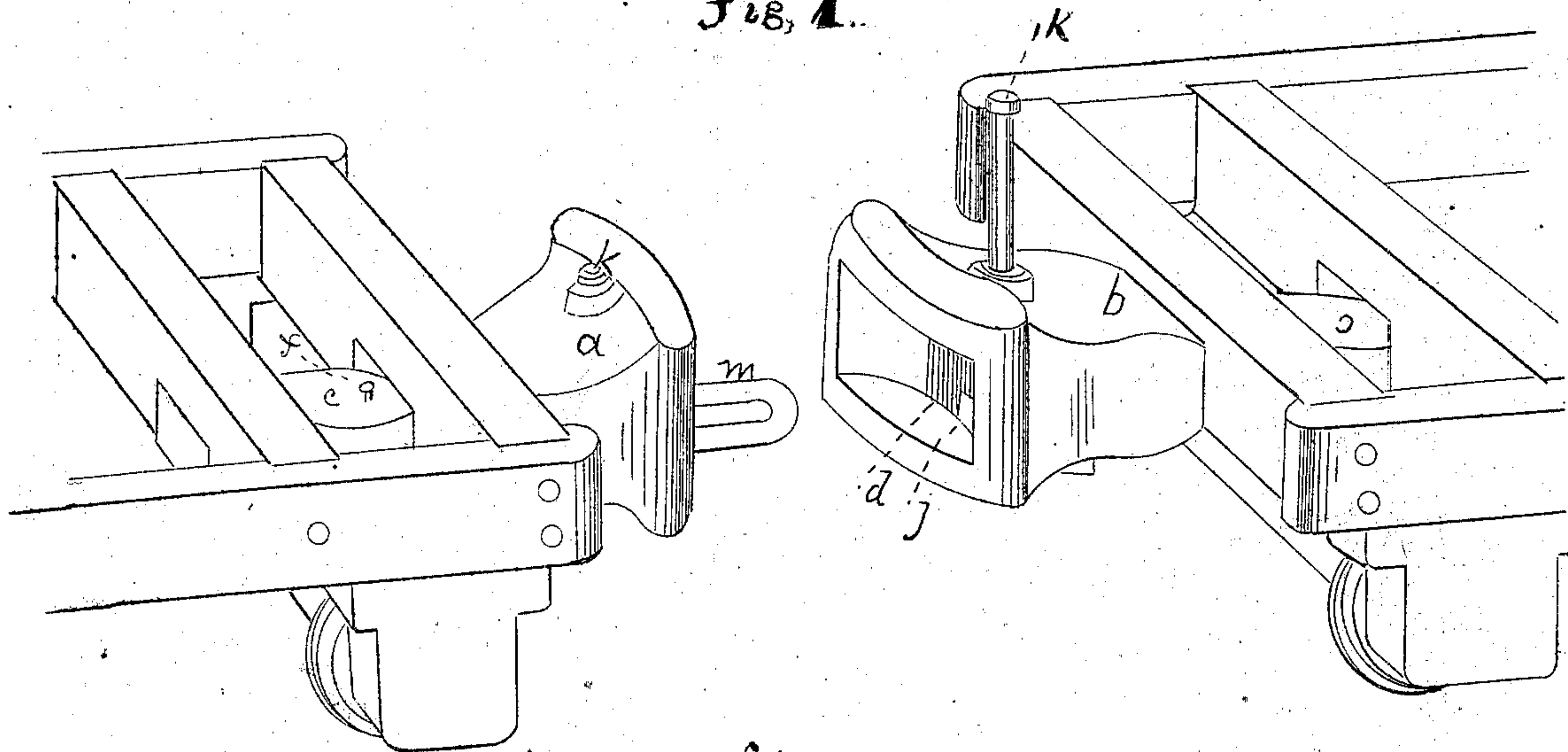
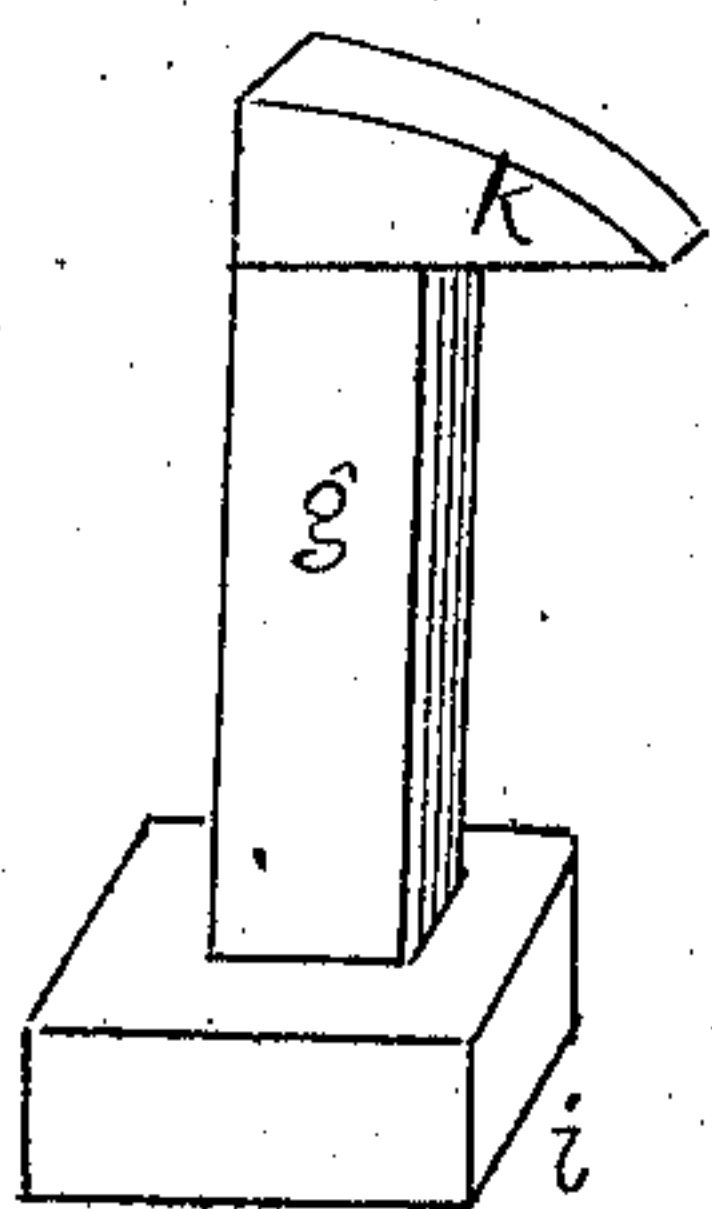


Fig. 2.



Witnesses.

Inventors.

Lewis P. Bradford

Stillman Thorpe

Thos. A. Bradford

Wesley Thorpe

Stillman, & Wesley Thorpe's

Improved Car Coupling.

Patented Feby 18. 1868

PLATE 2.

fig. 1.

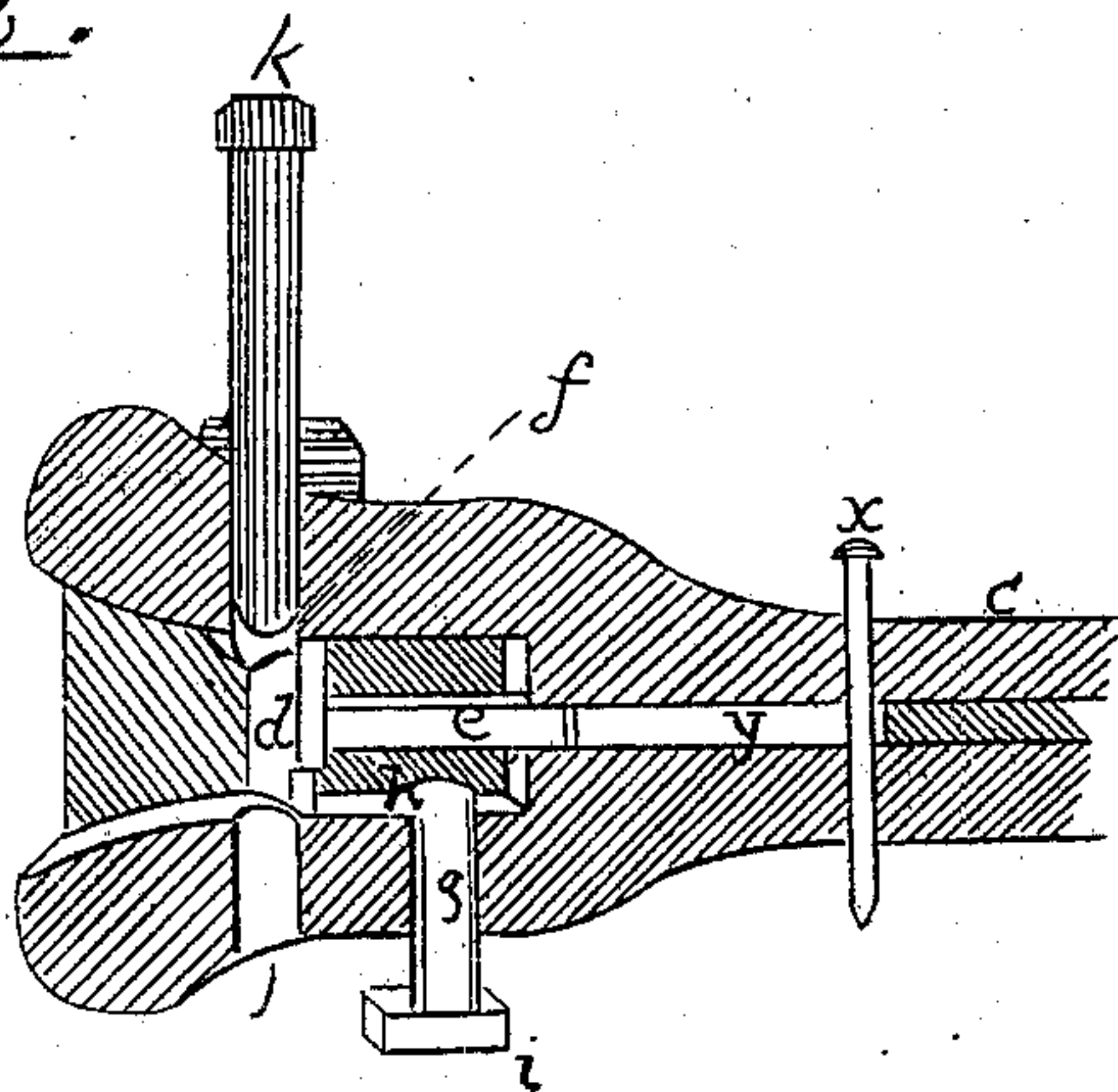
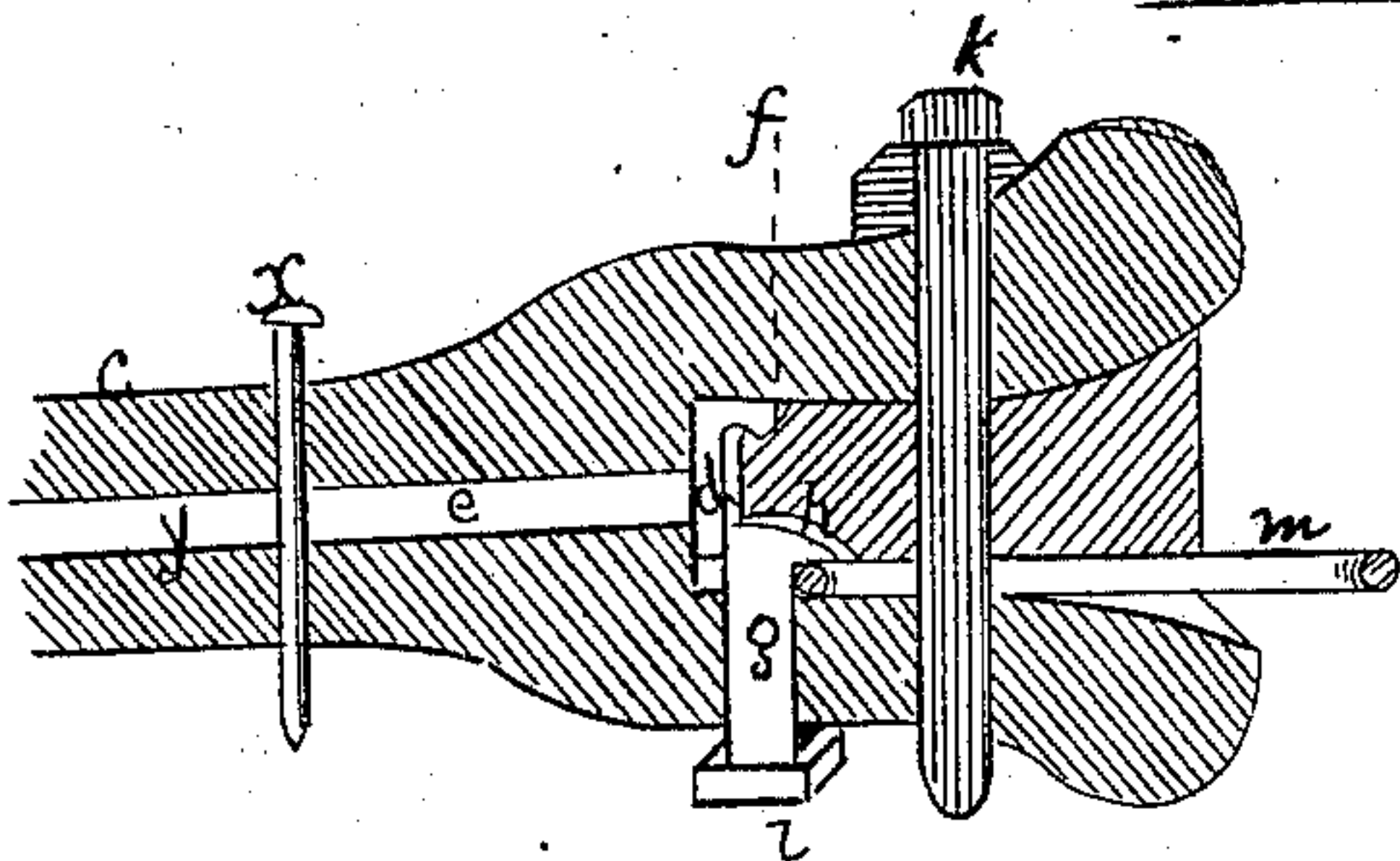
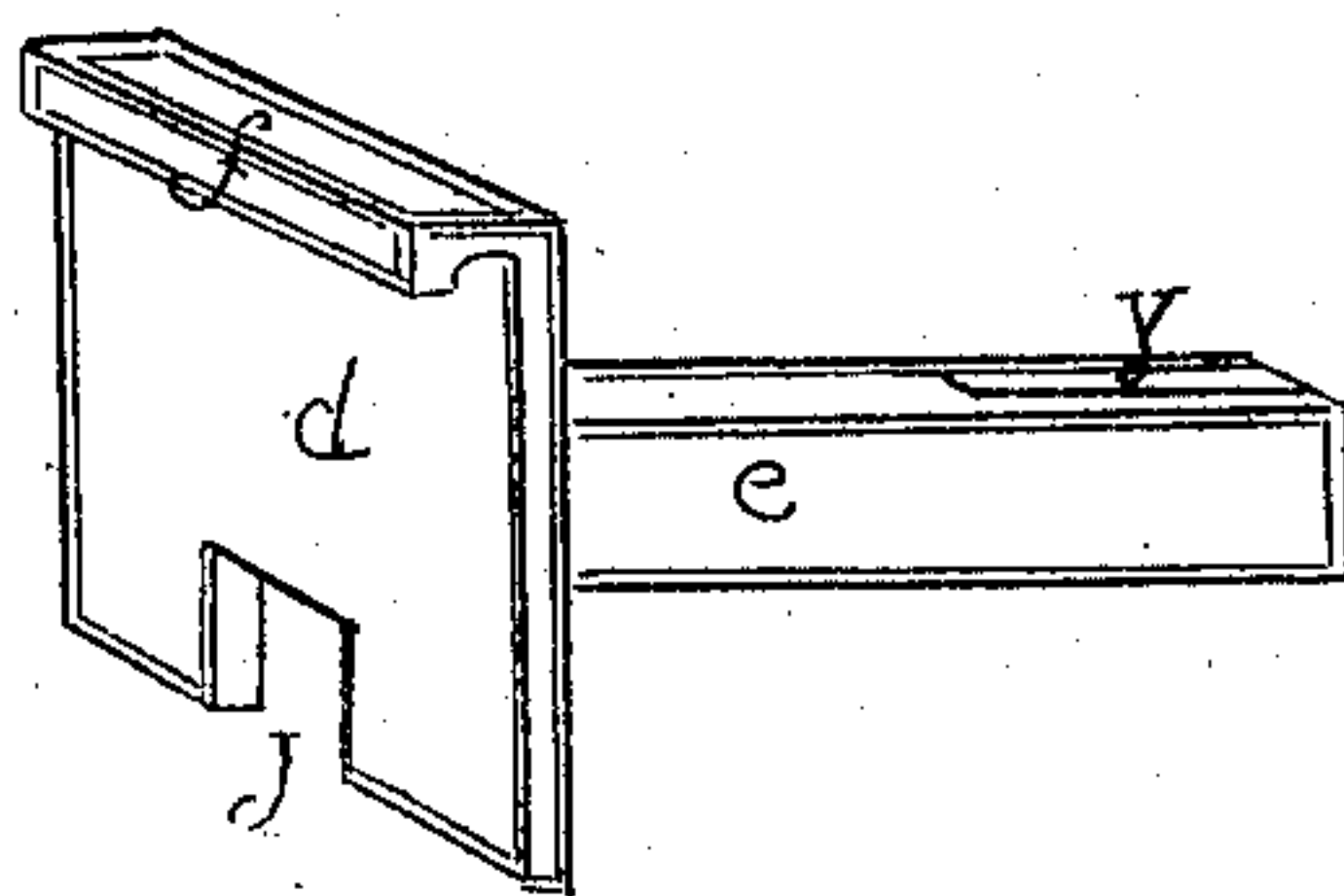


fig. 2.



Witnesses.

Lewis P. Bradford

Oliver A. Bradford

Inventors.

Stillman Thorpe

Wesley Thorpe

United States Patent Office.

STILLMAN THORPE AND WESLEY THORPE, OF TURNER, MAINE.

Letters Patent No. 74,631, dated February 18, 1868.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, STILLMAN THORPE and WESLEY THORPE, both of Turner, in the county of Androscoggin, and State of Maine, have invented a new and useful Improved Car-Coupling; and we hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use our invention, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, plate 1, is a view in perspective of our invention attached to cars.

Figure 2, plate 1, is a detached view of the weighted bolt.

Figure 1, plate 2, a sectional elevation of the buffers shown in fig. 1, plate 1.

Figure 2, plate 2, a perspective of the sliding back, its slotted arm, and notch.

Same letters show like parts.

Our invention has for its object the production of a quick and easy method for coupling cars, and consists of certain devices, by the arrangement and operation of which we seek to secure this end.

a and *b*, respectively, show two buffers attached to cars, as common. The mouth or open part of these buffers is made flaring at the top, bottom, and sides, as illustrated in the drawing. This we do not claim. *c* shows the bar, which is hollow. *d* is a sliding or movable back, fitted into the hollow of the buffers. On the rear face of this slide is a bar or arm attached to said slide, said arm moving in the hollow of the bar *c*. *e* shows this arm. Upon the front face of the slide *d* is a projection, *f*. Through the bottom of the buffers is inserted the weighted bolt *g*, working easily in a hole in said bottom, and having a lip or shoulder. *h* shows the lip; *i*, the weight. *j* shows a notch in the bottom of the slide *d*, in order to allow it to move over the head of the weighted bolt, projecting somewhat within the hollow of the buffer. *k* shows the pin arranged to drop through the hole *l*, at the top of the buffer. Our invention employs but one link, which is represented at *m*. By the use of these devices we obtain a shackle that couples the cars by the impact of the two buffers, when the cars are brought together, or, in other words, our invention is automatic or self-shackling in its operation.

The operation is as follows: When two cars are to be shackled together the end of the link that is within the hollow of the buffer is placed underneath the lip or shoulder *h*, on the head of the weighted bolt. This maintains the link in a horizontal position, and prevents the said link, when the two cars come together, from it from striking the sliding back *d*, and thus being pushed within the hollow of the buffer, which would prevent coupling. This is the arrangement which is made with the buffer in which the link is placed. In the buffer of the car to be united with this, the following arrangement is made: The sliding back *d* is drawn forward until the projection *f* passes under the hole *l*, so that the pin *k* may rest on said projection, as shown in fig. 1, plates 1 and 2. As the two cars now come together, the link in its buffer, sustained and held in position by the weighted bolt as before described, will push backward the sliding back *d* in the other buffer, thus releasing the pin in said buffer, and allow it to drop through the holes in the buffer, through the link, and thus unite the cars. For better security the pin drops into a hole in the bottom of the buffer. The arm *e* has a slot, *y*, through which passes the pin *x*, and through the bar *c*, in order to allow the sliding back *d* to move backward and forward, and still retain it in the hollow of the buffer. If desired, a ring may be attached to the front face of the sliding back, for convenience in drawing it forward, or a hollow may be made on the under side of the projection *f*, as illustrated in the drawing. It will be understood that the buffer in which the sliding back is pushed backward when the cars come together, is the one in which the link is not placed; but it makes no difference in which of the two buffers to two approaching cars the link is placed, provided the other buffer is arranged for the impact of the two, as before described.

We do not claim an automatic car-shackle, neither do we claim releasing and dropping the pin by the impact of the cars. We are aware of Letters Patent granted to Warren D. Hatch, No. 6,754, in 1849, and we do not claim the combination of a spring tongue with a self-acting guided coupling-pin, arranged as set forth in said patent. Neither do we desire to claim the employment of a slide fitted into the draw-head in grooves, and having a pendent plate and spring arranged to operate as set forth in the rejected application of H. Lefevre and A. Ellmaker, received and filed March 19, 1863.

The construction and operation of our invention is different from either of these; first, from the fact of

the absence of any spring in the sliding back piece *d*, and its arm *y*, which spring is liable to get out of repair; second, in the use of the weighted bolt *g* with its head *h*, for the purpose of sustaining the link in a position to enter the opposing draw-head. The operation is different, inasmuch as the sliding back piece *d*, in the absence of a spring, must be drawn forward by hand to support the pin *k*, as shown in one-half of fig. 1, plate 2. The slot of the arm *y* and the pin *x* fitting therein is also different. These differences prevent our invention from being entirely automatic in all its operations, but increase its capacity for wear.

But what we do claim, and desire to secure by Letters Patent, is—

The combination and arrangement of the sliding back *d*, slotted arm *y*, and pin *x*, with the coupling-pin *k*, in connection with the weighted bolt *g* and link *m*, as and for the purposes set forth.

STILLMAN THORPE,
WESLEY THORPE.

Witnesses:

LEWIS P. BRADFORD,
FLORA A. BRADFORD.