

(No Model.)

O. ROTHROCK.

SAFETY DEVICE FOR LOCOMOTIVE PILOTS.

No. 297,012.

Patented Apr. 15, 1884.

Fig. 1.

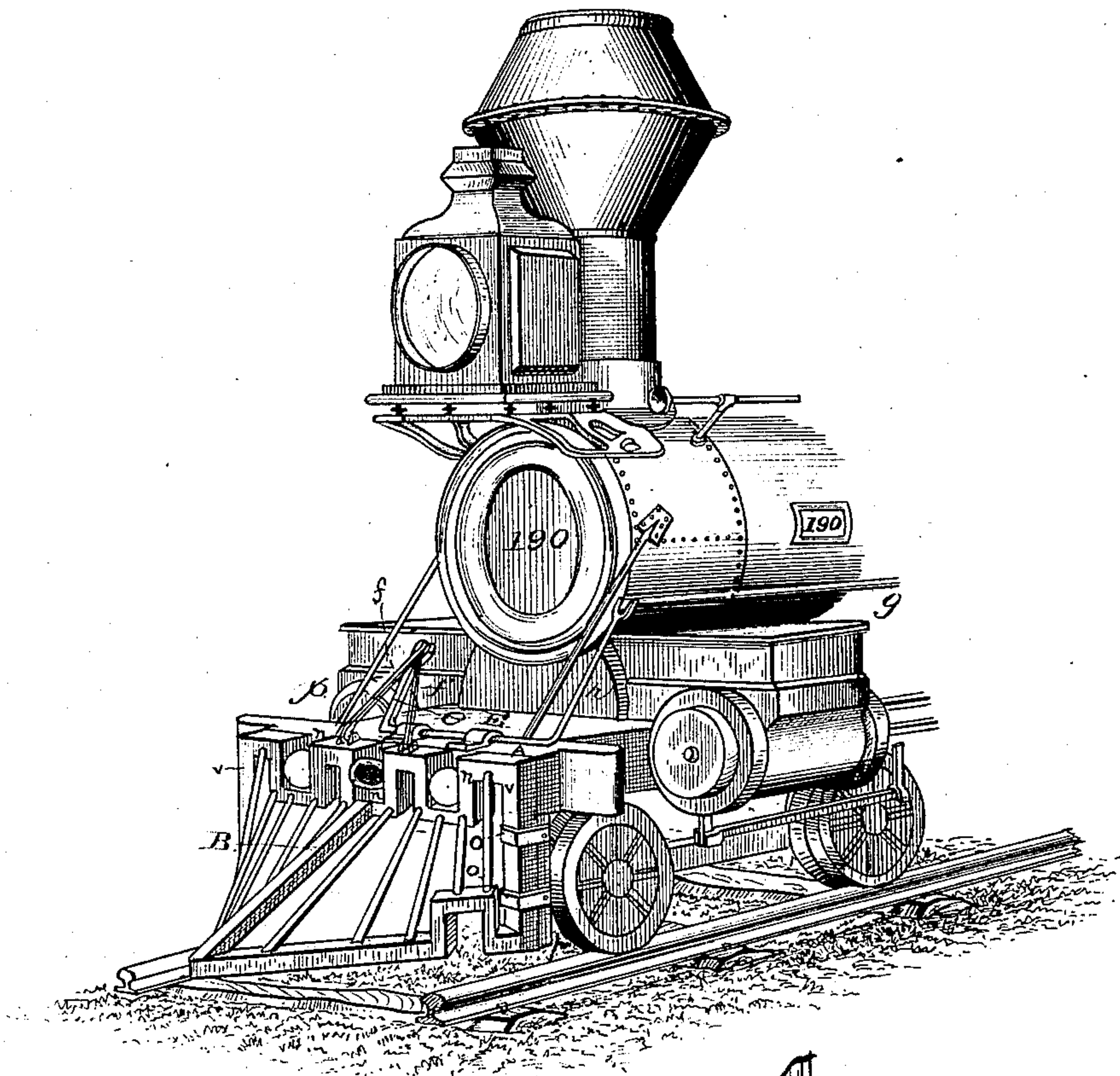
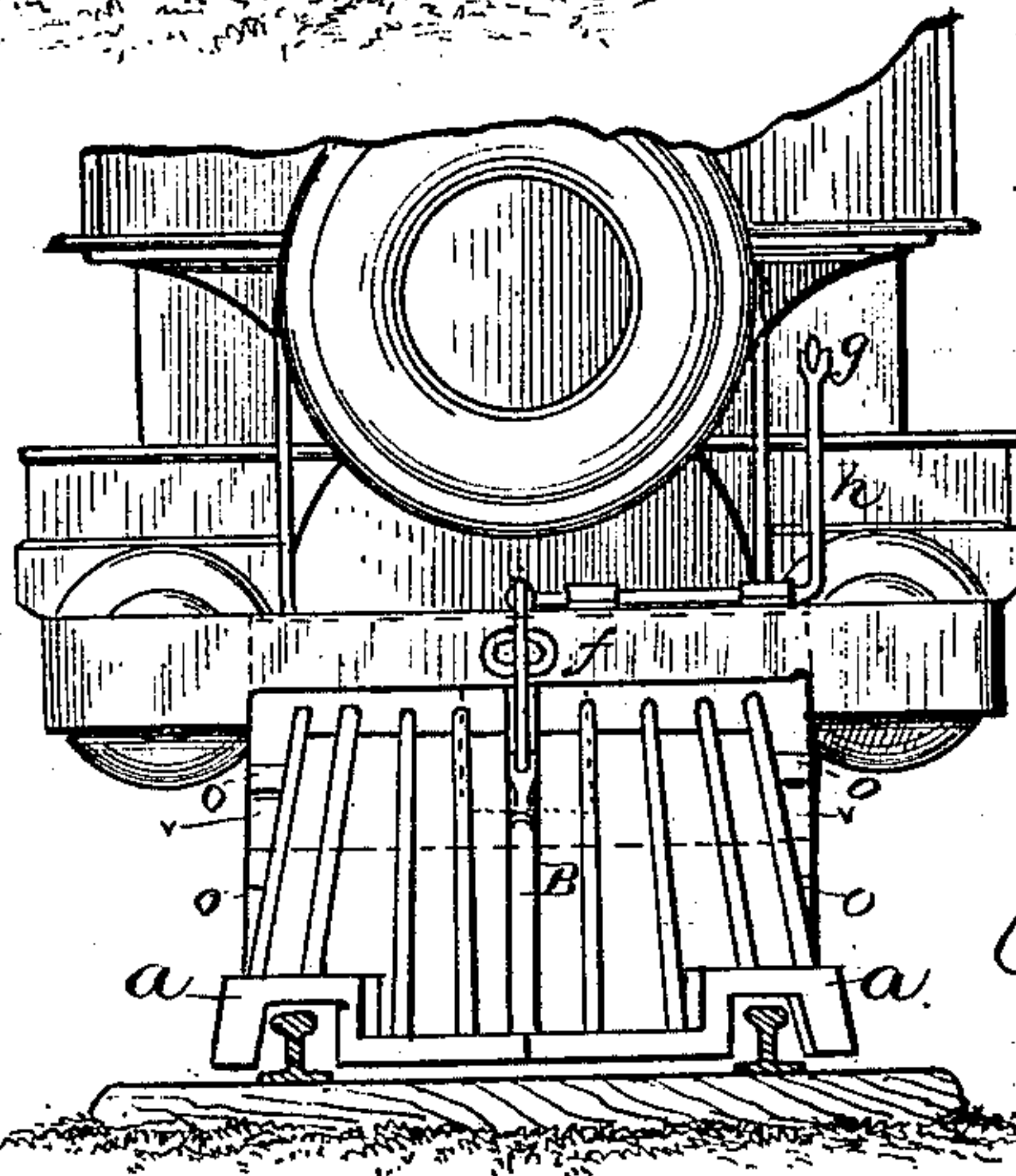


Fig. 2.



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SAFETY DEVICE FOR LOCOMOTIVE-PILOTS.

SPECIFICATION forming part of Letters Patent No. 297,012, dated April 15, 1884.

Application filed December 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, OSCAR ROTHROCK, of Beech Creek, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Safety Devices for Locomotive-Pilots; and I 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 a safety device for locomotive-pilots or cow-catchers, the object thereof being to remove obstructions, whether animate or inanimate, from the track, and prevent the train from passing over the same. The pilot or cow-catcher of a locomotive as ordinarily constructed does not extend to the track-rails, and hence it frequently happens that an animal or other object, after having been struck by the pilot, drops again in front of the same, or is brought into such a position that the locomotive and train pass over such object, consequently rendering the train very liable to be thrown from the track, with the grave consequence of causing loss of life and destruction of property. This invention is designed to prevent such accidents; and to this end it consists in such construction and combination of parts as will hereinafter be distinctly pointed out.

In the drawings hereunto annexed, Figure 1 is a perspective view of the front portion of a locomotive and its pilot, the latter capable of being raised or lowered. Fig. 2 is a front elevation of the pilot shown in a lowered position.

Similar letters refer to similar parts in both views.

A is a beam on the front of the locomotive, having two posts, *p*, (one of which is shown in Fig. 1,) attached on each side of its lower portion. These posts extend down to the bottom of the pilot when it is in its elevated position, and have attached to them the guides *o o*. These guides inclose that portion of the pilot marked *v v* in the drawings, so that the pilot is free to move up and down. The upper portion of the frame-work of the pilot is constructed so as to provide the spaces *n n*, for

the reception of the buffers and draw-head, these being separate and distinct from the pilot. The lower side portion of the frame-work of the pilot is also of a construction that provides the arches *a a*, for the reception of the rails when the pilot is lowered.

The means for raising and lowering or operating the pilot constructed in the above-described manner depend altogether upon the character of the locomotive or the position of the cab or engine-room, it being understood in all cases to be under the control of the engineer, so that it can be quickly and easily operated for the purposes herein set forth, and any suitable mechanism for raising and lowering it can be employed. In the present instance I have illustrated an operating mechanism for the pilot which consists of a rock-shaft, *E*, located at the front of the locomotive-track, and having an arm, *e*, connected with the links *f f'*, extending from the upper portion of the pilot. A rod, *g*, connected with an arm, *h*, on the outer end of the rock-shaft, extends to a vertical lever which is supposed to be located in the cab of the locomotive, and to have a suitable pawl or spring-catch for locking it to a notched segment or plate or other holding device. It will be manifest that when said lever is locked in one position the pilot is held in an elevated state, as is shown in Fig. 1. When the lever is released, the weight of the shaft suffices to let it drop until it is again locked. When the engine-room is in front of the engine, and the pilot extends any considerable distance above the floor of the cab, suitable mechanism should be placed behind the pilot at the engineer's hand. The pilot may in some instances extend two or three feet (even more) above the floor of the cab. In such instance suitable coiled springs would be serviceable in raising the pilot after it has been permitted to drop; or, in rare instances, the springs might, in connection with suitable relief devices, be permitted to perform the function of both lowering and raising the pilot.

The operation is as follows: When approaching cattle on the track, the pilot is lowered to within such a distance from the rails or ground as to obviate any liability of danger should an animal be struck and fall in front of the locomotive. In such an event the pilot would

throw the animal to the side of the track. When obstructions exist on crossings, switches, &c., the pilot is lowered to a point just level with the rails, so as to throw such obstructions outwardly from the track. In positions where no such objects as switch-rails, frogs, &c., are between the track-rails, the pilot, by virtue of its side pieces being constructed with the arches, can be lowered to within a short distance of the sleepers or cross-ties, so as to permit the engineer to throw off any object like a cow, hog, or sheep. Guide-posts may be located at the side of the track for indicating the nature and position of obstructions which will prevent the pilot from being lowered to its lowest point.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a vertically-adjustable locomotive-pilot having spaces *n n n*, for receiving the draw-head and bumpers, with the mechanism consisting of the links *f f'*, rock-shaft *E*, lever *h*, and rod *g*, substantially as and for the purpose set forth.

2. The combination, with a locomotive-truck having posts *p p*, of a vertically-adjustable pilot attached to said posts, and means for operating said pilot at the will of the operator, as described.

3. The combination, with a locomotive-truck having posts *p p* at its forward end, said posts having guides *o o*, of the vertically-adjustable pilot, constructed as described, and the means, substantially as herein set forth, whereby the same is operated from the cab of the engine.

4. The combination, with a locomotive-truck having suitable guides at its forward end, of a vertically-adjustable pilot moving in said guides, and means for raising and lowering the same, substantially as described.

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

OSCAR ROTHROCK.

Witnesses:

J. R. YOUNGMAN,
C. G. FURST.