No. 610,027. Patented Aug. 30, 1898.

L. W. CANADY.

THROTTLE LEVER.

(Application filed Dec. 15, 1897.)

(No Model.)

Fig 1

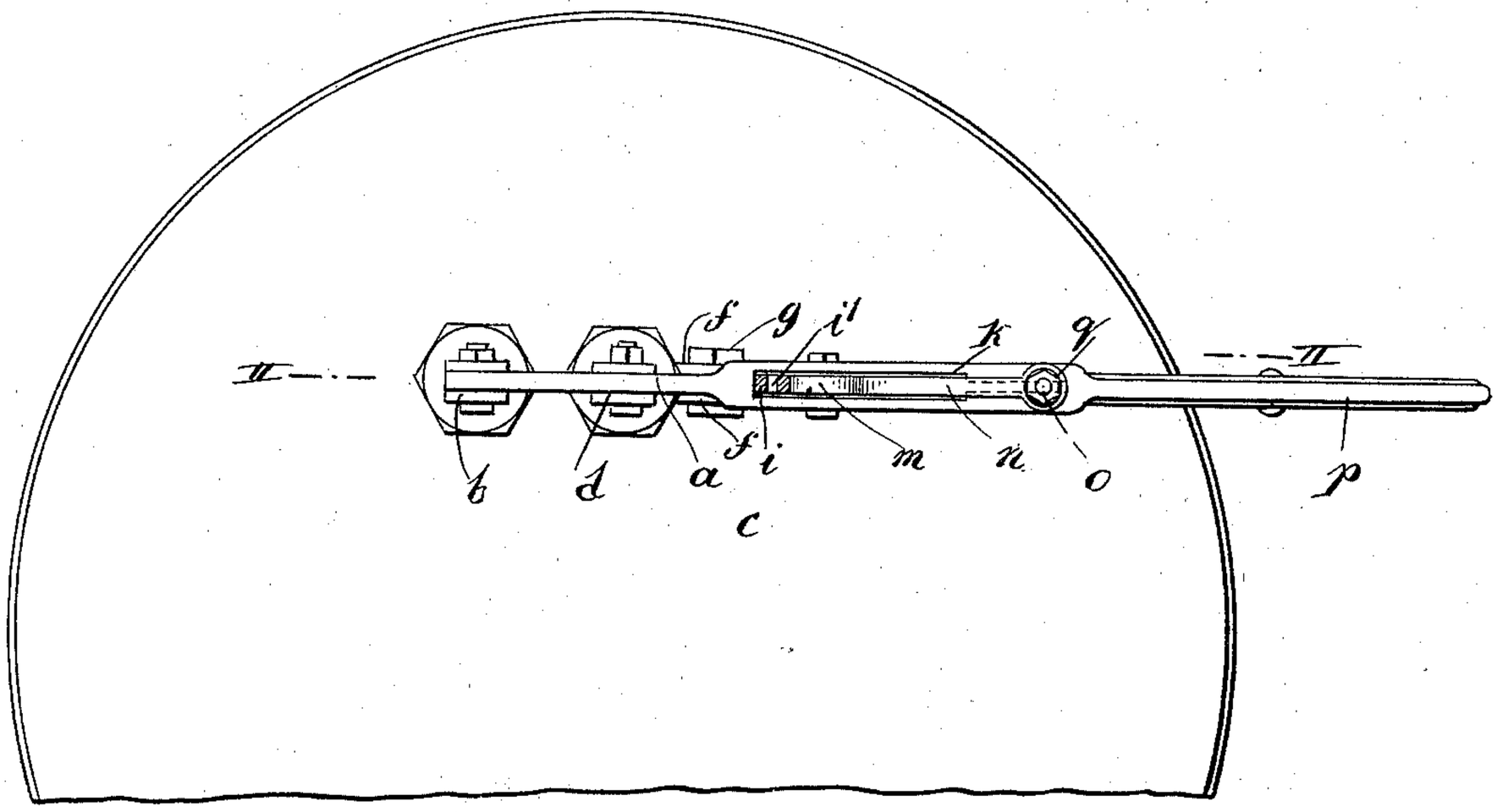
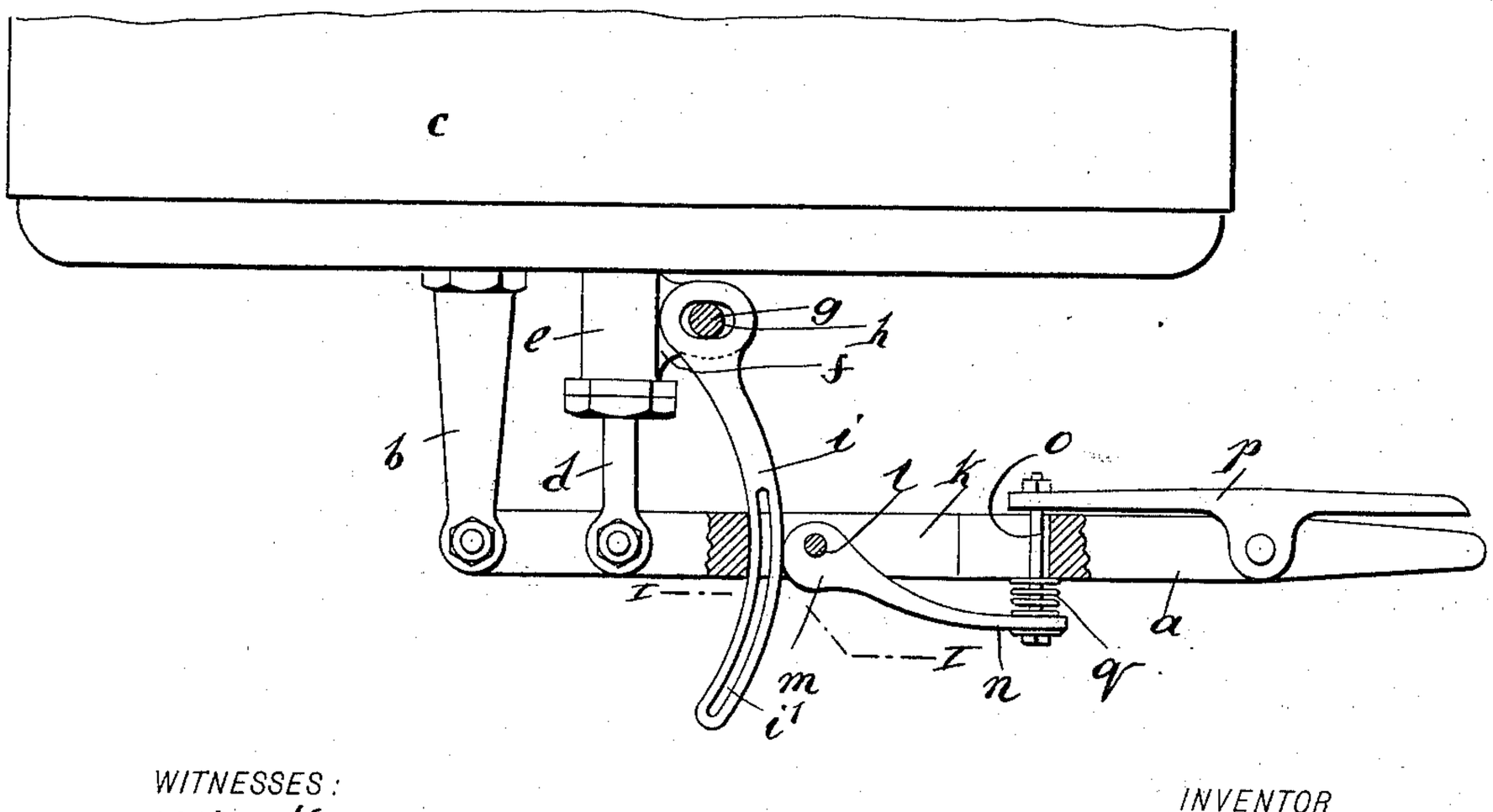


Fig 2



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LORIN WINFIELD CANADY, OF TOYAH, TEXAS.

THROTTLE-LEVER.

SPECIFICATION forming part of Letters Patent No. 610,027, dated August 30, 1898.

Application filed December 15, 1897. Serial No. 661,999. (No model.)

To all whom it may concern:

Be it known that I, LORIN WINFIELD CANADY, of Toyah, in the county of Reeves and State of Texas, have invented a new and Improved Throttle-Lever, of which the following is a full, clear, and exact description.

This invention is a throttle-lever by which the throttle of the locomotive or other engine may be thrown to any position and held firmly and surely at such position by the automatic operation of its parts, at the same time permitting the throttle to be easily readjusted by an action of the engine-driver.

This specification is the disclosure of one form of my invention, while the claims define the actual scope of the invention.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a front elevation of the invention, with a part in section, on the line I I of Fig. 2; and Fig. 2 is a plan view, with parts in section, on the line II II of Fig. 1.

The drawings show a locomotive-throttle, and here the throttle-lever *a* is, as usual, fulcrumed on an arm *b* standing out from the boiler *c*. The throttle-stem *d* is pivoted to the lever and slides in a gland *e* rigid with the boiler. The gland *e* carries rigidly two lugs *f*, holding between them a pin *g*, which is received by the slightly-elongated orifice *h* in an arc-shaped arm *i*, whereby to mount said arm to swing between the lugs *f* and on the pin *g*, the slight elongation of the slot *h* permitting the arm to have that lateral movement which is essential to evenness of operation in connection with the throttle-lever *a*. The throttle-lever is provided with a slot *k*, through which the arm *i* loosely extends. Mounted to swing in the slot *k* and on a pin *l* is a cam *m*, which works against the arm *i* and which is provided with an extension *n*, projecting toward the free end of the lever *a* and in approximate parallelism with the lever. Connected to the end of the extension *n* is a rod *o*, which extends through the contracted outer portion of the slot *k* and is connected with a handpiece *p*, pivoted on the outer end of the lever *a*. An expansive spiral spring *q* embraces the rod *o* and bears against the extension *n* and against the adjacent side of the throttle-lever *a*. With such an arrangement the spring *q* normally throws the extension *n* in the position shown in Fig. 2, causing the cam *m* to bind firmly against the arm *i*, and by these means the throttle-lever *a* is held fixedly at the proper adjustment. This adjustment may readily be changed by throwing the handpiece *p*, so as to draw the extension *n* inward against the tension of the spring *q*, thus releasing the cam *m* from its engagement with the arm *i* and permitting the lever *a* to be adjusted. Immediately upon the relaxation of the pressure upon the handpiece *p* the spring *q* expands and forces the cam *m* against the arm *i*, and thus locks the lever in place.

The arm *i* is provided with a slot *i'*, which may receive a bolt and nut or other clamping device whereby to limit the movement of the lever *a* or to lock the lever immovably on the arm.

The invention, while particularly adapted for throttle-levers, is capable of use in many other connections, among which is the reversing-lever of locomotive-engines.

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

1. In a throttle, the combination with the boiler, having a rigid arm and a gland, a lever fulcrumed on said rigid arm, an arm mounted to swing on the gland and having sliding engagement with the lever, and a spring-pressed cam carried on the lever and capable of engaging the arm.

2. The combination with a boiler having a rigid arm projecting outward therefrom, and also having a packing-gland thereon, of a lever fulcrumed to the arm, a movable arm having an elongated orifice receiving a portion of the packing-gland whereby to pivotally mount the arm, the lever having a slot therein through which slot the arm extends, a cam mounted in the slot and capable of engaging the arm to lock the arm and lever with each other, a spring pressing the cam,

and a handpiece mounted on the lever and in connection with the cam to move the lever against the tension of the spring.

3. The combination of a lever, an arm mounted to swing adjacent to the lever, a cam mounted to rock on the lever and engaging the arm to lock the same with the lever a spring pressing the cam and a handpiece mounted on the lever and connected with the cam to move the same against the spring.

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