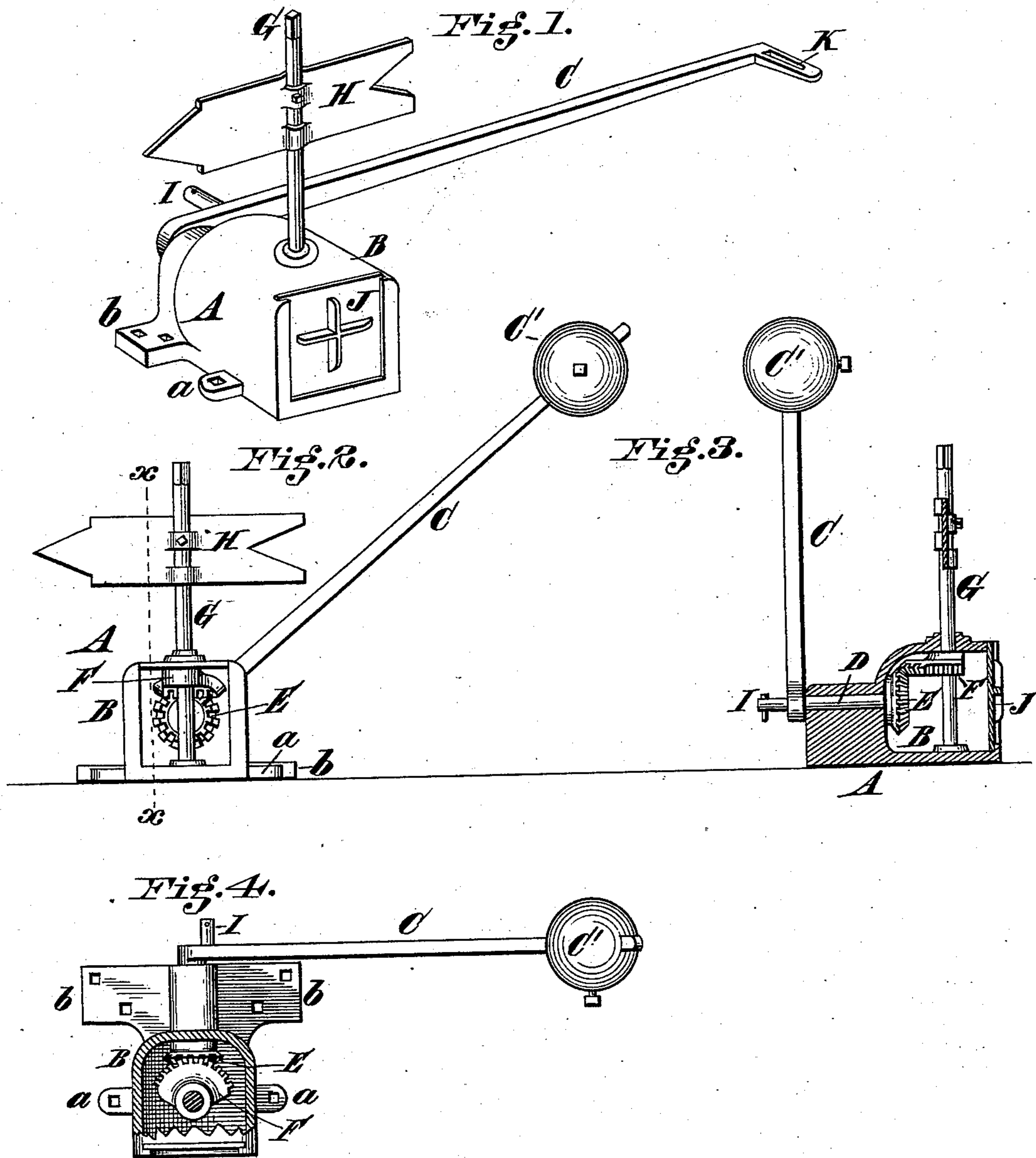


(No Model.)

F. C. WEIR.
SWITCH STAND.

No. 294,100.

Patented Feb. 26, 1884.



Attest
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Inventor
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UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

SWITCH-STAND.

SPECIFICATION forming part of Letters Patent No. 294,100, dated February 26, 1884.

Application filed February 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, FREDRIC C. WEIR, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Switch-Stands; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

My invention consists in certain novel improvements in railroad-switch stands or ground-switch throws, which I will first describe, and then point out particularly in the claim at the end of this specification.

In the accompanying drawings, Figure 1 represents a perspective view of my invention; Fig. 2, an end elevation of the same with the sliding plate removed; Fig. 3, a sectional view taken on the line *xx* of Fig. 2; Fig. 4, a plan view with a portion of the casing removed.

Similar letters of reference in the several figures denote the same parts.

A represents the body of the switch-stand, consisting, preferably, of a single piece of metal, cast or otherwise formed with the horizontal and vertical bearings for the shafts D and G, respectively, a chamber, B, for inclosing the gears E and F upon said shafts D and G, and with suitable perforated lugs, *a b*, by which it may be spiked down firmly to the sills or cross-ties.

C represents the actuating-lever of the switch, rigidly attached to the shaft D, and carrying upon it the crank-pin I, to which is adapted to be connected the pitman or connecting-rod leading to the ordinary tie-bar of the switch-rails.

The lever C may be provided with a slot, K,

as shown in Fig. 1, to receive a suitable locking-staple, as ordinarily; or it may be provided with an adjustable weight, C', as shown in Figs. 2, 3, and 4.

The bevel-gear E on the horizontal shaft D meshes into the corresponding segmental gear, F, on the vertical shaft G, and said shaft G carries a target, H, or a lantern, to give the appropriate signal to indicate in which position the switch is shifted.

The sliding plate J covers the opening leading into the chamber B, and effectually incloses the gears and protects them from access of dirt, snow, and rain.

From this construction it will be observed that all the journals and bearings of the parts are arranged within the main casting and occupy a fixed relation to each other, while the gearing is completely housed from the weather, though accessible, when desirable for oiling and other purposes, through the opening covered by the removable slide.

Having thus described my invention, I claim as new—

The combination of the chambered casting having the horizontal and vertical bearings of the shaft D, target-shaft G, gears E and F, inclosed within the casting, and the weighted lever C, rigidly attached to shaft D, and carrying the crank-pin I, to which the pitman or connecting-rod is adapted to be connected, the whole arranged and operating substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDRIC C. WEIR.

Witnesses:

JNO. E. JONES,

FRANK MILLWARD.