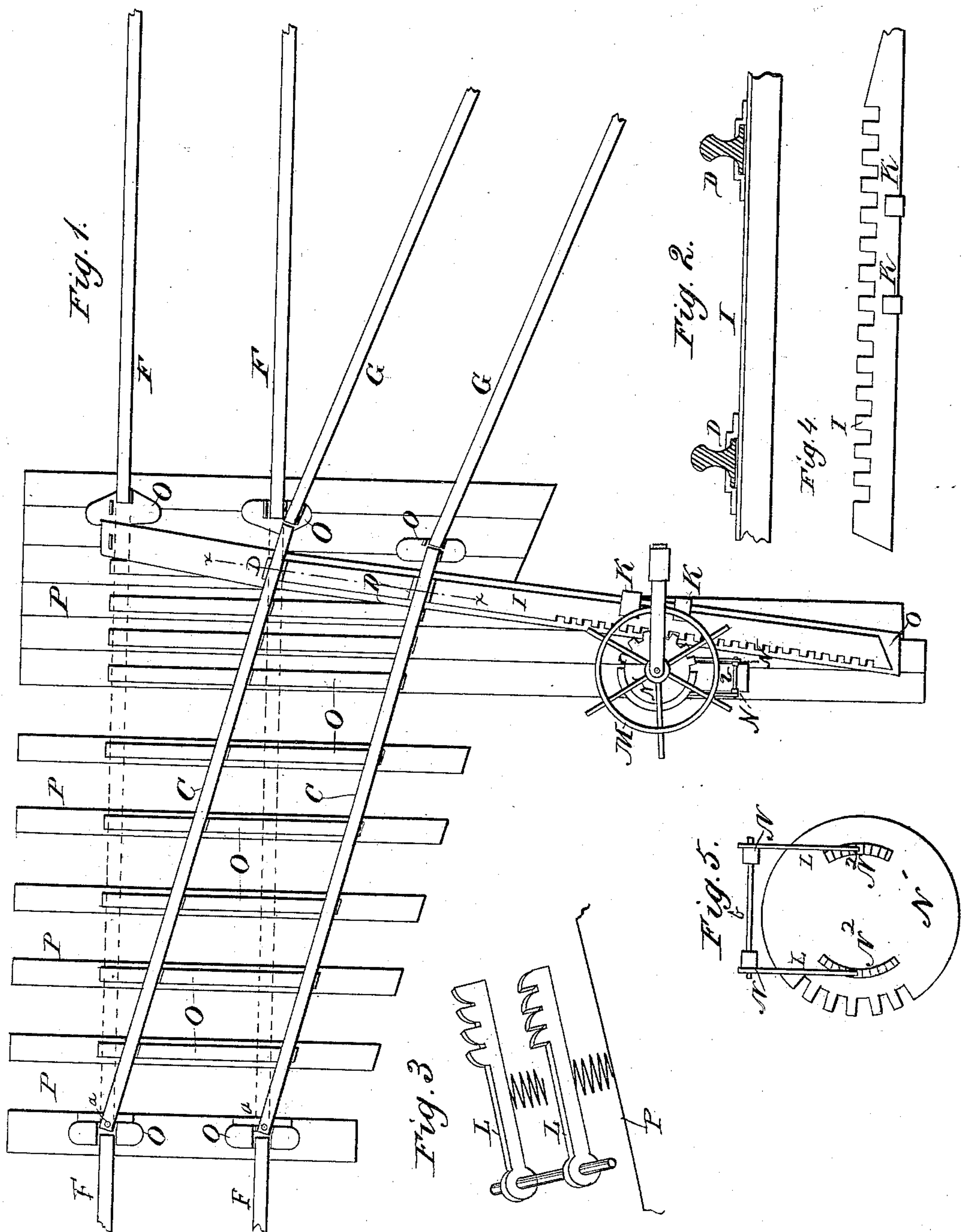


(No Model.)

J. ELMER.
RAILROAD SWITCH.

No. 277,697.

Patented May 15, 1883.



Witnesses.
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UNITED STATES PATENT OFFICE.

JACOB ELMER, OF BILOXI, MISSISSIPPI.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 277,697, dated May 15, 1883.

Application filed November 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB ELMER, of Biloxi, in the county of Harrison and State of Mississippi, have invented certain new and useful
5 Improvements in Railroad-Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings and letters of reference marked thereon, in which—

10 Figure 1 is a plan view of the main-track rails, a siding, and switch-rails. Fig. 2 is a cross-section of the switch-rails in the line *xx*, Fig. 1. Fig. 3 is a perspective view of the spring-pressed pawls. Fig. 4 is a detail plan
15 of the rack-bar, and Fig. 5 is an under side view of the pinion of the hand-wheel and the pawls for holding it in any desired position.

My invention relates to improvements in railroad-switches; and it consists in the peculiar construction and arrangement of the parts,
20 as hereinafter more fully set forth and claimed.

In the accompanying drawings, *F F* represent the main-track rails, and *G G* the rails of a siding, all of the usual construction.

25 *C C* are the switch-rails, pivoted to one of the cross-ties *P* at *a a*, and forming a continuation or part of the main-track rails.

O O are metallic plates secured to the upper faces of the cross-ties *P* for the more ready
30 and smooth movement of the switch-rails *C C* over the cross-ties.

I represents a rack-bar having chairs *D* secured to it for the reception of the switch-rails *C C*. The rack-bar *I*, and with it the switch-

rails *C C*, is adapted to be reciprocated on a
35 plate, *O*, provided with guides *K K*, which direct or guide the movements of the rack-bar back and forth by means of a hand-wheel, *M*, carrying a cog-wheel, *N'*, on its axis, which
40 cog-gear meshes with the rack-bar *I*, and imparts a reciprocating motion in either direction to the rack-bar which carries the switch-rails.

b represents a short shaft supported in bearings in uprights *N*, secured to a continuation
45 of one of the cross-ties.

To the shaft *b* are pivoted the pawls *L L*, supported by spiral springs, their lower ends resting on the cross-tie and their upper ends bearing against the pawls *L L*, the tension of
50 which springs is exerted to force the pawls into engagement with the two arcs of ratchet-teeth *N²*, arranged on the bottom of the cog-wheel *N'*, and on opposite sides of its center, to hold the switch-rails in any desired position.
55

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the pivoted switch-rails *C C*, of the rack-bar *I*, hand-wheel *M*, cog-wheel *N'*, provided with ratchet-teeth *N²*
60 *N²* on its under face and lying on opposite sides of its center, and spring-pressed pawls *L L*, substantially as described, and for the purpose set forth.

JACOB ELMER.

Witnesses:

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