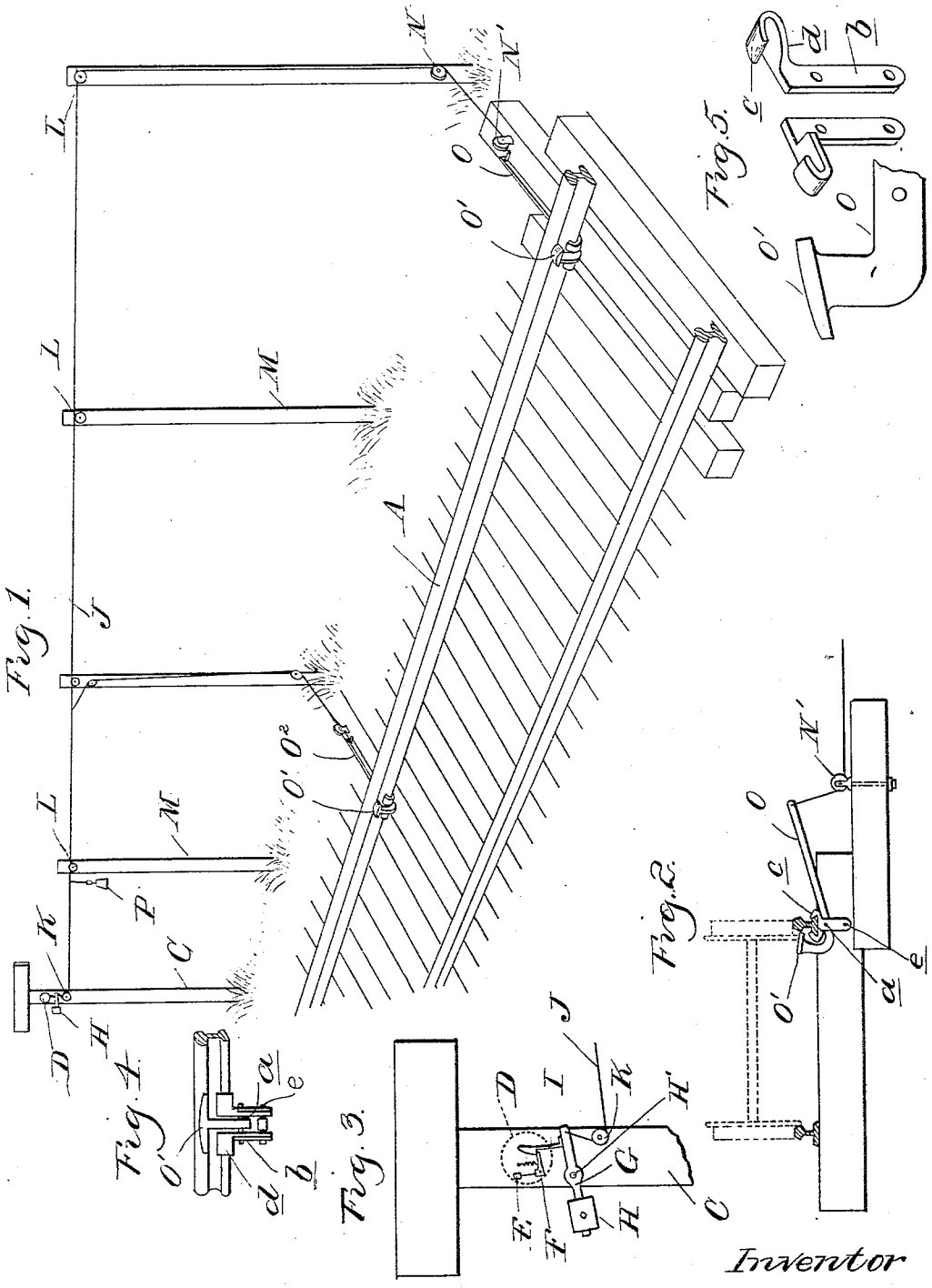
(No Model.)

# C. T. FRASHER.

## ALARM FOR RAILWAY CROSSINGS.

No. 504,719. Patented Sept. 12, 1893.




Witnesses
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# UNITED STATES PATENT OFFICE.

CHARLES T. FRASHER, OF MOUNT PLEASANT, MICHIGAN, ASSIGNOR OF ONE-HALF TO GEORGE REED, OF SAME PLACE.

## ALARM FOR RAILWAY-CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 504,719, dated September 12, 1893.

Application filed September 8, 1892. Serial No. 445,319. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES T. FRASHER, a citizen of the United States, residing at Mount Pleasant, in the county of Isabella and State of Michigan, have invented certain new and useful Improvements in Alarms for Railway-Crossings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in railway signal alarms, and the invention consists in the peculiar construction, arrangement and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a perspective view of a section of a railroad at a crossing, showing my improved signal applied thereto. Fig. 2 is a cross section through the railroad showing the manner of operating the signal. Fig. 3 is an enlarged elevation of the alarm mechanism. Fig. 4 is an enlarged elevation, looking from the inner side of the rail of the clamping devices for the actuating lever. Fig. 5 is a detached perspective view of the clamps and a portion of the lever.

A is a railroad track.

C is the usual sign post indicating a road-crossing. Upon this sign post is secured a bell D having a hammer E pivoted within and having an actuating arm F preferably extending at right angles thereto, and a suitable spring for causing the hammer to strike against the bell when it is released by means of the mechanism to be described.

G is a lever having the counter-balance weight H at its outer end pivoted upon the pin H′ of the post C. This lever has a hook extension I extending at right angles thereto engaging with the actuating arm F on the bell hammer. At its same end the lever has connected to it an operating cord or wire J which passes under the sheave K on the post C and over the sheaves L on post M arranged along the track at a suitable distance from the road crossing. This cord descends to a point in line with the bottom of the rail or substantially so and passes beneath the sheaves N N′ engaging with the outer end of a lever O, which extends beneath the rail, and has an oppositely inclined head O′ adapted to be struck by the flanges on the wheels of a passing train. This lever is loosely journaled upon a bolt *a* which is clamped to vertical extensions *b* of a rail clamp, having the jaws *c*, formed upon the heads *d* at the upper end of the extension. This clamp is in two parts, each part consisting of like halves upon opposite sides of the rail, the two parts being secured at their lower ends by means of the clamping bolt *e*, and at their upper ends by the clamping bolts *a*; the jaws *c* being clamped upon the rail and the clamping bolt *e* being in position, the lever O will be firmly held to the rail, but free to move up and down as the wheels of the train depress it, the counter-weight H actuating the lever G in one direction and the striking of the wheels of the train upon the lever O operating it in the other direction, thus ringing the bell and sounding an alarm all the time the train is passing over the lever. I preferably arrange a series of these levers at suitable distances apart that the alarm will be ringing no matter what the length of the train that is passing over a given distance at either side of the road crossing, and I have shown a second alarm, which I mark $O^2$.

P is a counterweight secured to the cord J intermediate to its ends to adjust the slack.

What I claim as my invention is—

In a railway signal, the combination with a track, a signal, and an actuating wire, of a lever arranged beside the track in range of the flange of a wheel, and clamps consisting of heads *d*, jaws *c*, and extensions *b* arranged on opposite sides of the lever embracing the base of the rail and in which the lever is pivoted, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES T. FRASHER.

Witnesses:
N. L. LINDOP,
M. B. O'DOGHERTY.