

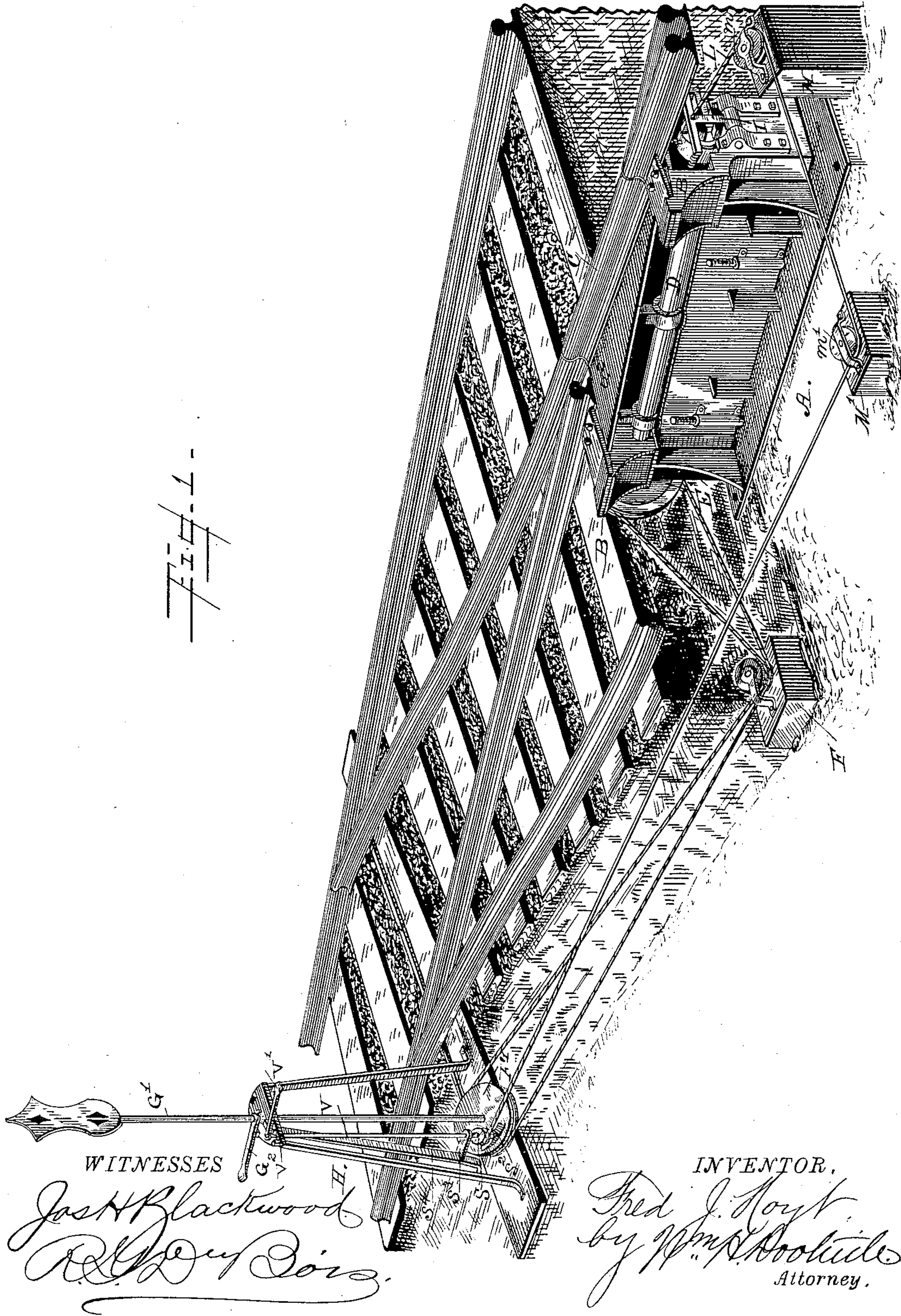
(No Model.)

2 Sheets—Sheet 1.

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ROTARY TRACK CROSSING.

No. 388,135.

Patented Aug. 21, 1888.





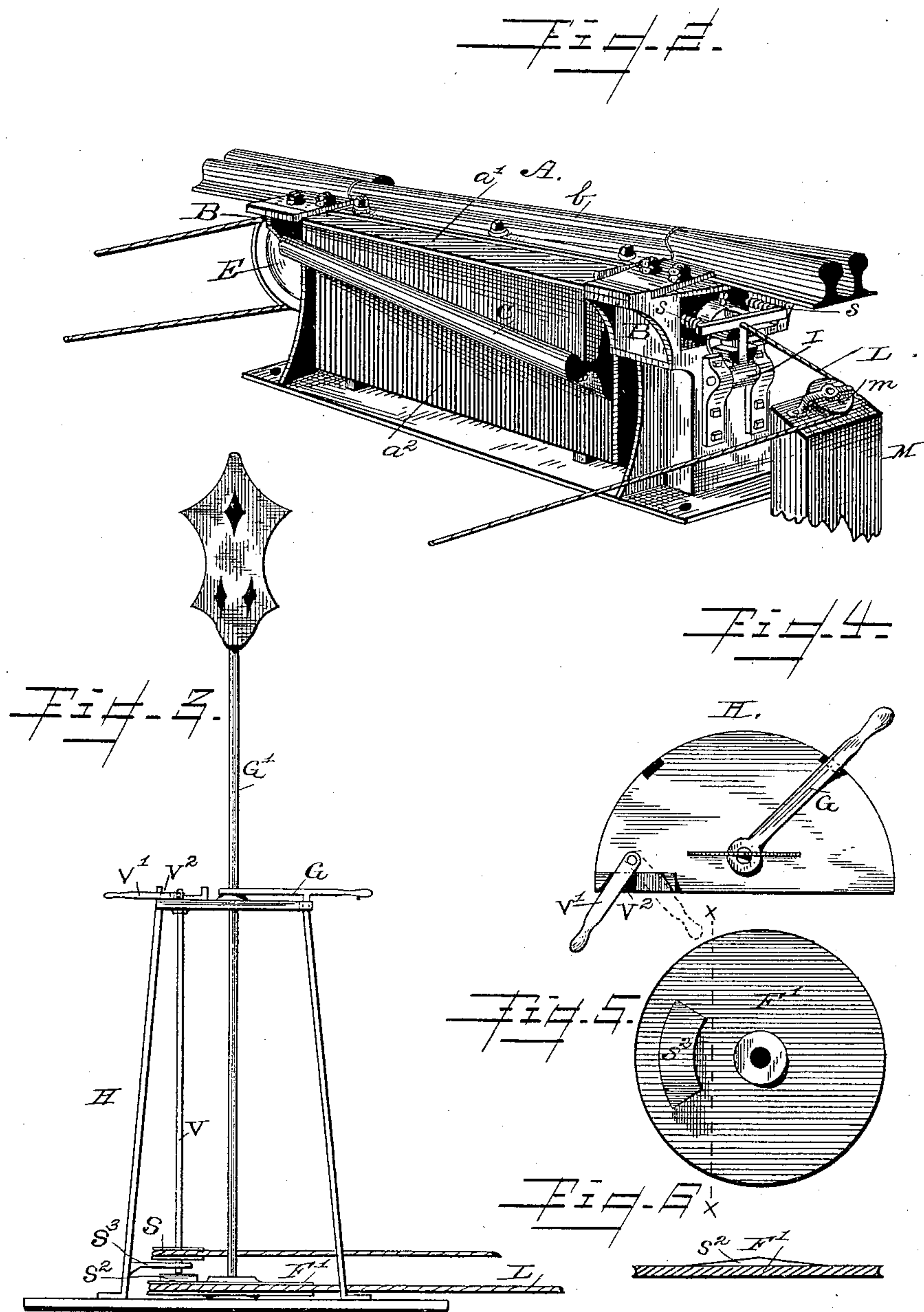
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WITNESSES  
Jas. Blackwood  
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INVENTOR  
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# UNITED STATES PATENT OFFICE.

FRED J. HOYT, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE HOYT RAILROAD TRACK CROSSING COMPANY, OF SAME PLACE.

## ROTARY TRACK-CROSSING.

SPECIFICATION forming part of Letters Patent No. 388,135, dated August 21, 1888.

Application filed March 24, 1888. Serial No. 268,397. (No model.)

*To all whom it may concern:*

Be it known that I, FRED J. HOYT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rotary Track-Crossings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of an improvement in the rotary track-crossing patented to me May 11, 1886, No. 341,848; and it has for its object the improvement of the means by which such a crossing is operated.

My invention is illustrated in the accompanying drawings, in which--

Figure 1 is a perspective view in detail; Fig. 2, a similar view broken away to show the improvement in detail and in place in a track; and Figs. 3, 4, 5, and 6, details.

Referring to the drawings, A is a rotary track-crossing constructed of two heavy steel or boiler plates,  $a'$   $a''$ , fastened together with an angle-iron forming one-half of a square.

B B are heavy iron castings, through which the supporting-shaft D passes, and to which it is fastened rigidly. On one face is a straight rail,  $b$ , and on the other face a siding-rail,  $c$ .

The shaft revolves in boxes or journals at each end, and is supported at all points underneath the shaft by saddles babbitted the same as the journals, which makes a solid bearing from end to end the whole length underneath the crossing and yet permits the same to be easily rotated. The shaft is rotated by means of a chain passed over wheel E on one end of shaft D, and connected with switch-pulleys F and F' and switch-levers G and G'.

The bearings of the plates forming the crossing and the supporting-shaft are perfectly firm to withstand vertical strains or side-thrusts from wheel-flanges; but to guard against possible forcing out of line a simple lock is provided. This consists of a T-shaped piece of metal projecting upward from a short shaft, I, journaled on one end of the crossing. The cross arm of the T is held by two spiral springs,  $s$   $s$ , against the end of the shaft D. The shaft end is deeply recessed both vertically and hori-

zontally, and into these recesses the vertical member of the T-shaped piece is drawn by the action of the springs the moment the crossing is turned to either one of its two positions. The locking is quick and unfailing in its action.

To unlock the crossing when it is desired to throw the switch is but the work of a moment. It is accomplished by the following means: To the lock T is secured a wire cable, L, which runs over pulleys  $m$   $m'$ , mounted on blocks M M', and back to the switch-stand H, where it is passed over a pulley, S, secured to a vertical rod, V. This rod V extends up through a bearing,  $s^3$ , in the standard  $s^4$  of the switch-stand and terminates in a longitudinal arm, V', constituting a handle. This handle is adapted to be held within a latch-recess,  $v^2$ , in the switch-stand. The rod V is free to move up and down a slight distance, and its lower end extends through and a slight distance below the pulley S. On the upper side of the large switch-pulley F' is secured a lug,  $s^2$ , having a curved upper face. When the crossing is locked, the handle V' is held out of and above the latch-recess  $v^2$ . When it is desired to unlock and turn the crossing, the handle V' is given a quarter-turn and pushed down or dropped into the latch-recess  $v^2$ . By this movement the lock T is withdrawn from the crossing-shaft and held out of it. The switch is then thrown, and this movement carries the lug  $s^2$  on the switch-pulley F under the end of the rod V, thus lifting the handle V' out of the latch, whereupon, the strain upon the lock-cable being released, the springs pull the lock into the recessed shaft, thus automatically locking it, and at the same time the handle V' is thrown back against the switch-lever in position to be again operated when the crossing is to be turned.

What I claim is--

1. A rotary track-crossing provided on its face or faces with a rail placed to form a close and continuous connection with the rail of a main or branch track, in combination with a switch-lever mechanism and a locking mechanism to automatically lock the crossing in position when turned, substantially as described.

2. In combination with the rotary track-crossing having a longitudinal shaft, the locking device composed of a spring-bar adapted to enter the end of the said shaft, mechanism  
5 for turning said crossing, and lever mechanism connected to said bar and the switch, whereby when the crossing is turned the same is automatically locked in place, substantially as described.

10 3. In combination with a rotary track-crossing, a spring-lock, lever mechanism for operating said lock, and a switch-stand provided with a latch to engage with the lock-lever, whereby, when the lock is released, it is held  
15 disengaged until the crossing is turned, substantially as described.

4. The T-bar, the lever mechanism for releasing said bar, in combination with a rotary

crossing provided with a longitudinal shaft having recesses cut into one end thereof, and 20 a spring or springs secured to said shaft and bar to draw the bar within the said recesses of the shaft, substantially as described.

5. In combination with a rotary track-crossing, switch-stand, and lever mechanism, a lock, 25 and mechanism for operating said lock, consisting of the vertical rod V, handle V', in connection with a lug, s<sup>2</sup>, in the switch-pulley, and pulleys for the cable connecting the lock and its lever mechanism, substantially as described. 30

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

FRED J. HOYT.

Witnesses:

WILLIAM WARFIELD,  
WILLIAM H. HOYT.