No. 702,522. Patented June 17, 1902.

W. C. WOOD.

RAILWAY SWITCH.

(Application filed Dec. 16, 1901.)

(No Model.)

Fig. 1.

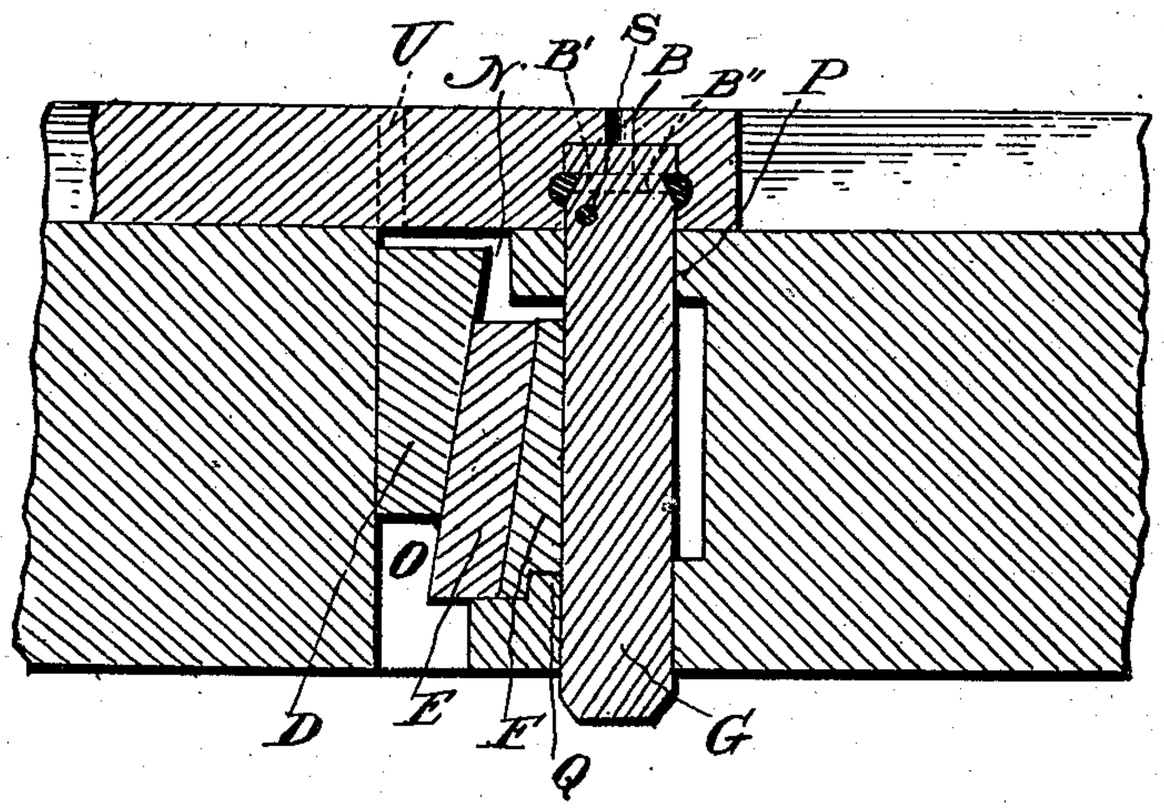
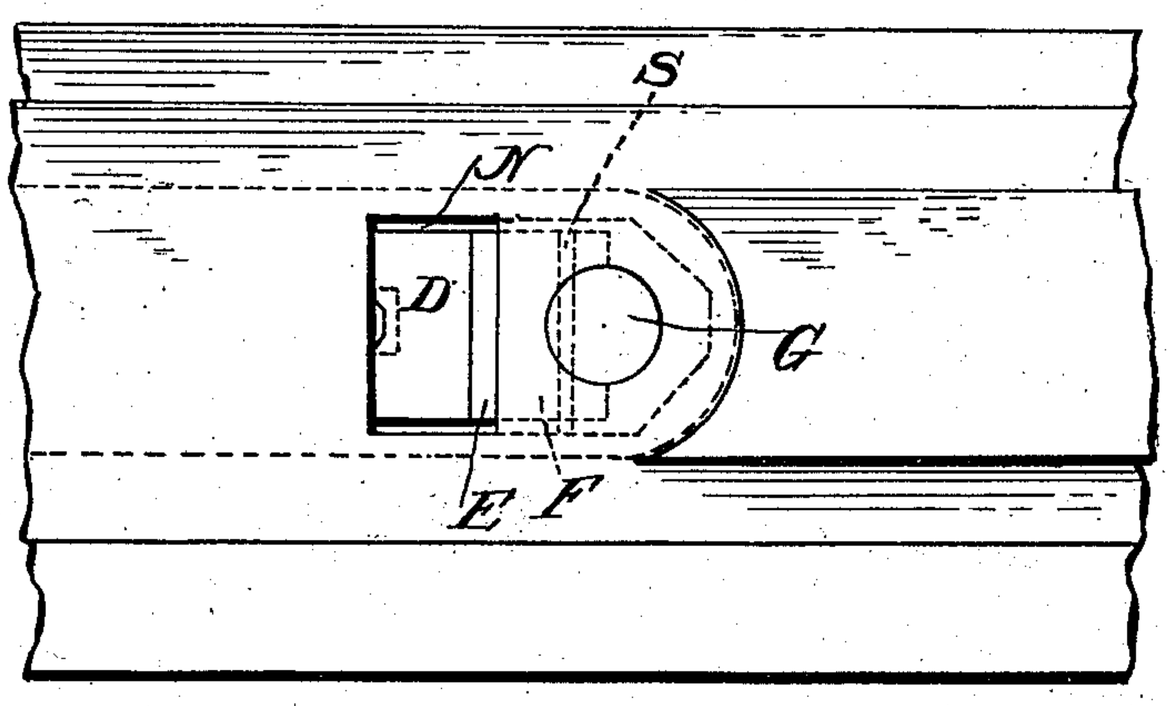


Fig. 2.



Witnesses

C. C. Hunt

E. Gibbon

Inventor

William C. Wood

By A. Bloomfield & Co.

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM C. WOOD, OF NEW YORK, N. Y.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 702,522, dated June 17, 1902.

Application filed December 16, 1901. Serial No. 86,121. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. WOOD, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Railway-Switches; and I do 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.

The invention relates to that class of switches wherein a vibrating or oscillating tongue is used for shifting the course of a line of track into a branch thereof, or vice versa, which tongue terminates at the base into a switch-center, at or near which point it is pivoted or hinged, as hereinafter more thoroughly described.

The special features of the invention are found in and around the pin which forms the central part of the hinge, first, in the manner of fastening the said pin in the tongue, and, next, in the manner and means whereby the pin is held in proper position, (vertically,) while being allowed to work (in the binding-box) with sufficient freedom to permit of shifting the point of the tongue from side to side without difficulty.

In the accompanying drawings, Figure 1 represents a longitudinal section of the device on line X X, Fig. 2. Fig. 2 represents in plan a portion of the switch-center and of the bed upon which the tongue (partially shown in dotted lines) is located and where it is secured at one end by parts indicated in full or by dotted lines.

Referring to the details represented in the drawings and indicated by letters of reference, D is designated as a "gravity-wedge," which is guided partially by side walls as well as by the vertical face of the end wall, against which the back of the said wedge slides and reacts in the performance of its duties, as hereinafter described. This wedge is inserted through opening N into recess O, which opening, on account of existing conditions, is confined within dimensions which would practically admit of nothing larger than the wedge and contiguous parts thus shown. Hence it is that the box F, which is here employed for holding the pin in the desired position, is made in two pieces or is supplied with a loose back E, which imparts the force from wedge D as applied to the back F and so on to the pin G in the manner thus plainly indicated.

The recess O is formed by the four vertical walls which surround it in conjunction with the top and bottom sections P and Q, respectively, and which latter parts serve to hold the pin G loosely (as intended) in a vertical position, but which pin is still dependent for its required stability upon the force exerted through the parts D E F, being thus urged to the support of said pin through the falling tendency of wedge D through its own gravity. This being so clearly the case demonstrated in practice and wherein this desired effect is so cheaply and simply produced, I make it a point to bring this part of the description to where my claim to the invention will be established.

It will be understood that all the parts herein described as new are adapted within the body of a railway-switch C of no unusual pattern, wherefor special description and illustration thereof are omitted here.

The pin G enters the tongue A from its lower surface, as shown, and is therein rigidly held by means of transverse pin S, reinforced by Babbitt or other suitable metal, which is poured around the pin after the same is in place, and for this purpose an annular chamber is provided in the tongue, which coincides with a depression in the pin, as shown; but in this connection it should be stated that one or the other of these expedients may be dispensed with under some circumstances. When the metal is used as above indicated, the pouring may be done through passages B B′ B″, (shown in dotted lines in Fig. 2,) and when removal of the pin is necessary the metal may be heated and run off through the same passages.

It will be observed that as the wedge D is entirely dependent upon its own gravity for the automatic adjustment of the box F against the pin G, and being constructed on an angle which does not admit of jamming to any appreciable extent, the removal of the said wedge from the top can always be effected without difficulty through the use of a hook-bar introduced through the passage U. (Shown in dotted lines in Fig. 1.)

In justice to the state of the art I deem it proper to make mention of the fact here that in Patent No. 395,987, granted to me on the 22d day of March, 1887, designated "Switch for street-railways," I made use of a gravity-wedge in my provisions for taking up slack.

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

1. In a railway-switch, a hinge-pin entering from the lower face of the tongue and extending to a point below its upper face, and means for fixedly fastening said pin into the tongue to turn with the swinging movement of the tongue, substantially as described.

2. In a railway-switch wherein a vibrating tongue is used for shifting the course of a track from a single track to a branch thereof, a vertical pin entering from the lower face of said tongue and extending upwardly to a point below the upper face of the tongue and having its upper end concealed by said tongue, and means for fixedly fastening the said pin to said tongue to turn with the swinging movement of the tongue, substantially as specified.

3. In a railway-switch, the combination with a tongue having on its under side a socket or recess, the end wall of which is located in a plane below that of the upper face of the tongue, and a pin inserted in the socket or recess, and means for fixedly fastening the pin in the socket or recess to turn with the swinging movement of the tongue, substantially as and for the purpose set forth.

4. In a railway-switch, the combination with a vibrating tongue having a recess or socket in its under side, the end wall of which is in a plane below that of the upper face of the switch-tongue, in combination with a pin for connecting the hinge-pin to the switch-tongue, a vertically-adjustable bearing-box, and an adjusting-wedge, substantially as set forth.

5. The combination with a vibrating switch-tongue having a socket or recess in its lower face, the inner wall of said socket or recess being in a plane below that of the upper face of the tongue, said pin at that point which enters the socket or recess being formed with a groove, and Babbitt metal let into said groove to lock the pin in place, substantially as set forth.

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

WILLIAM C. WOOD.

Witnesses:
I. R. BARKER,
JNO. S. MABON.