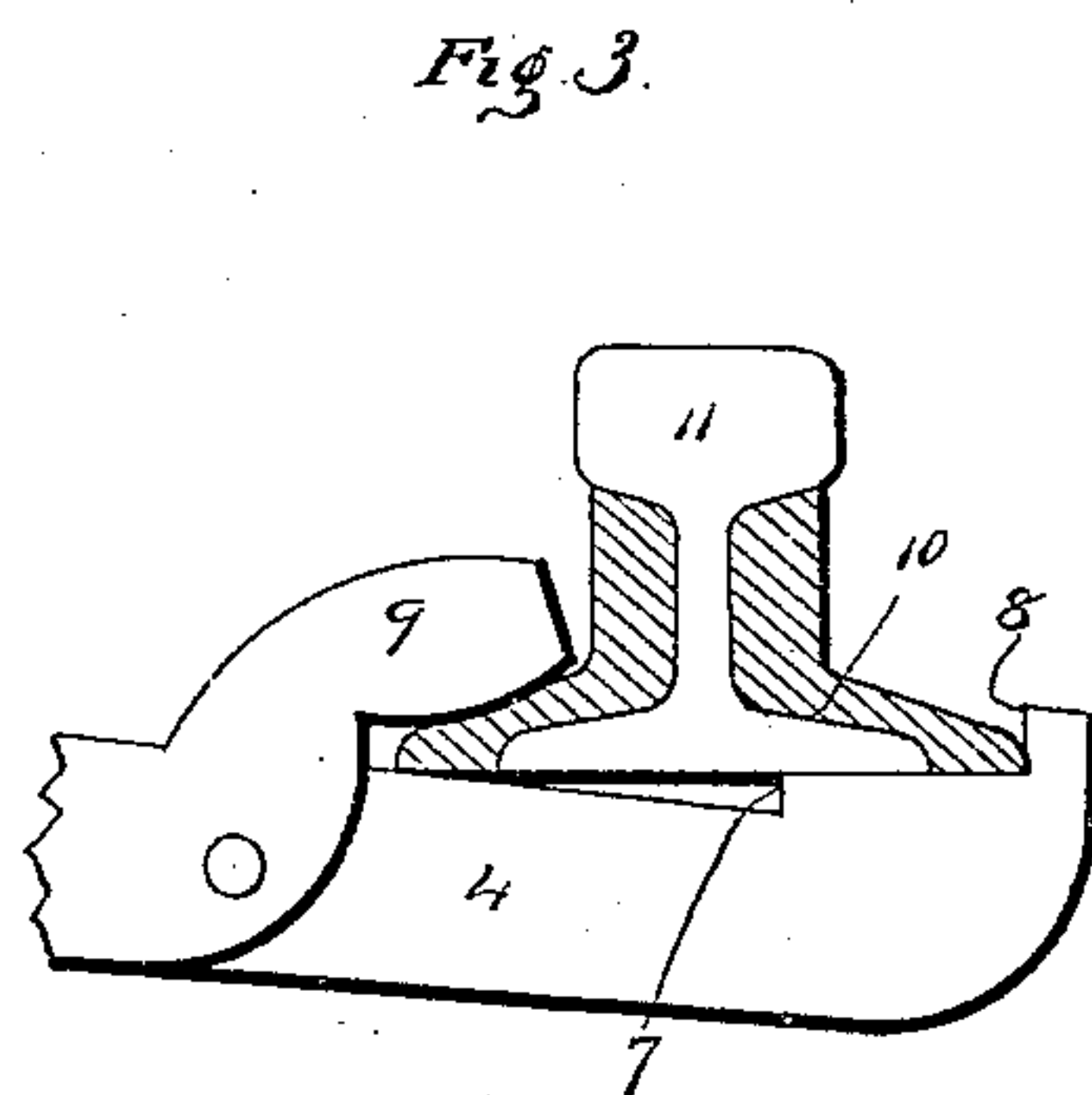
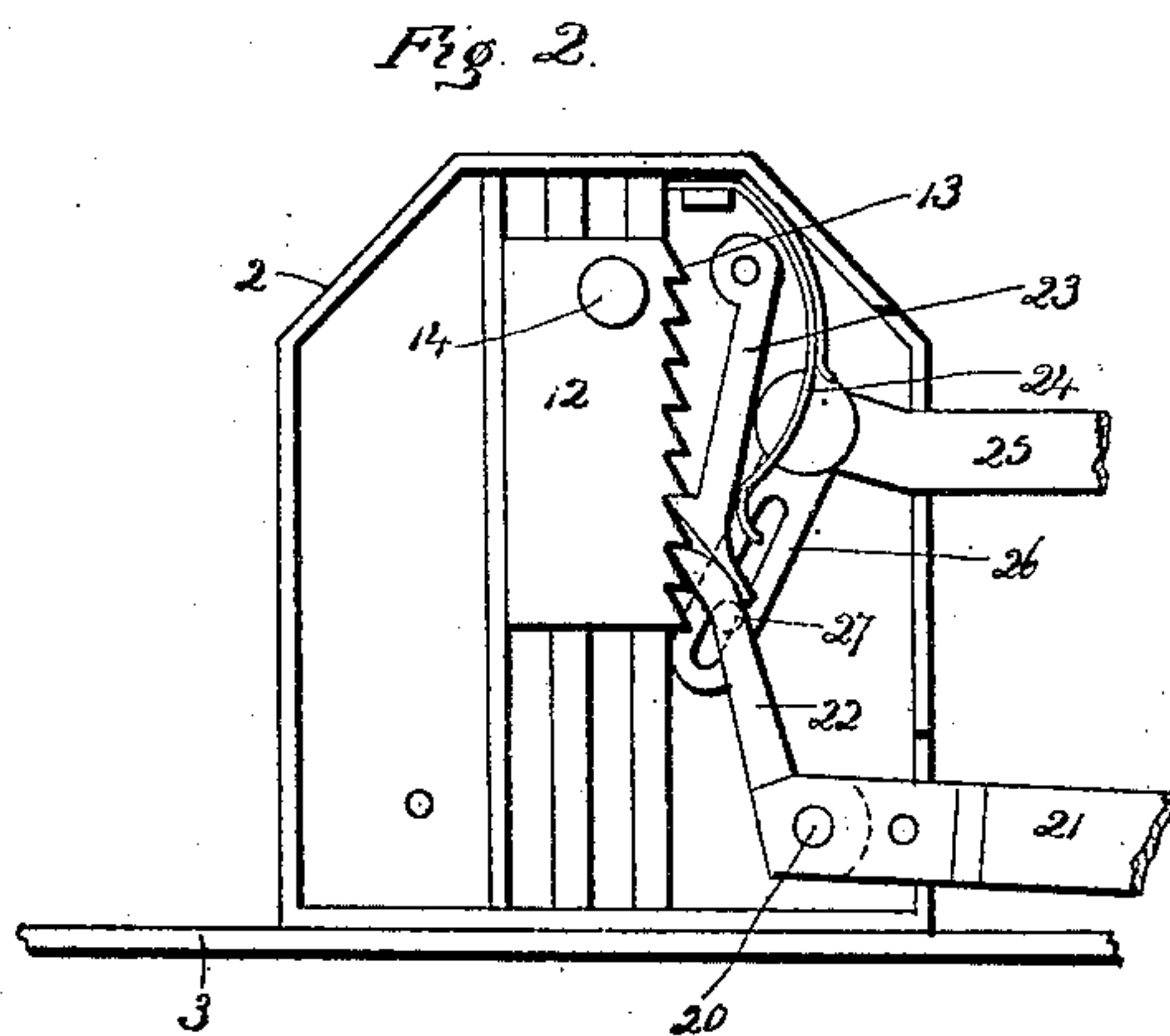
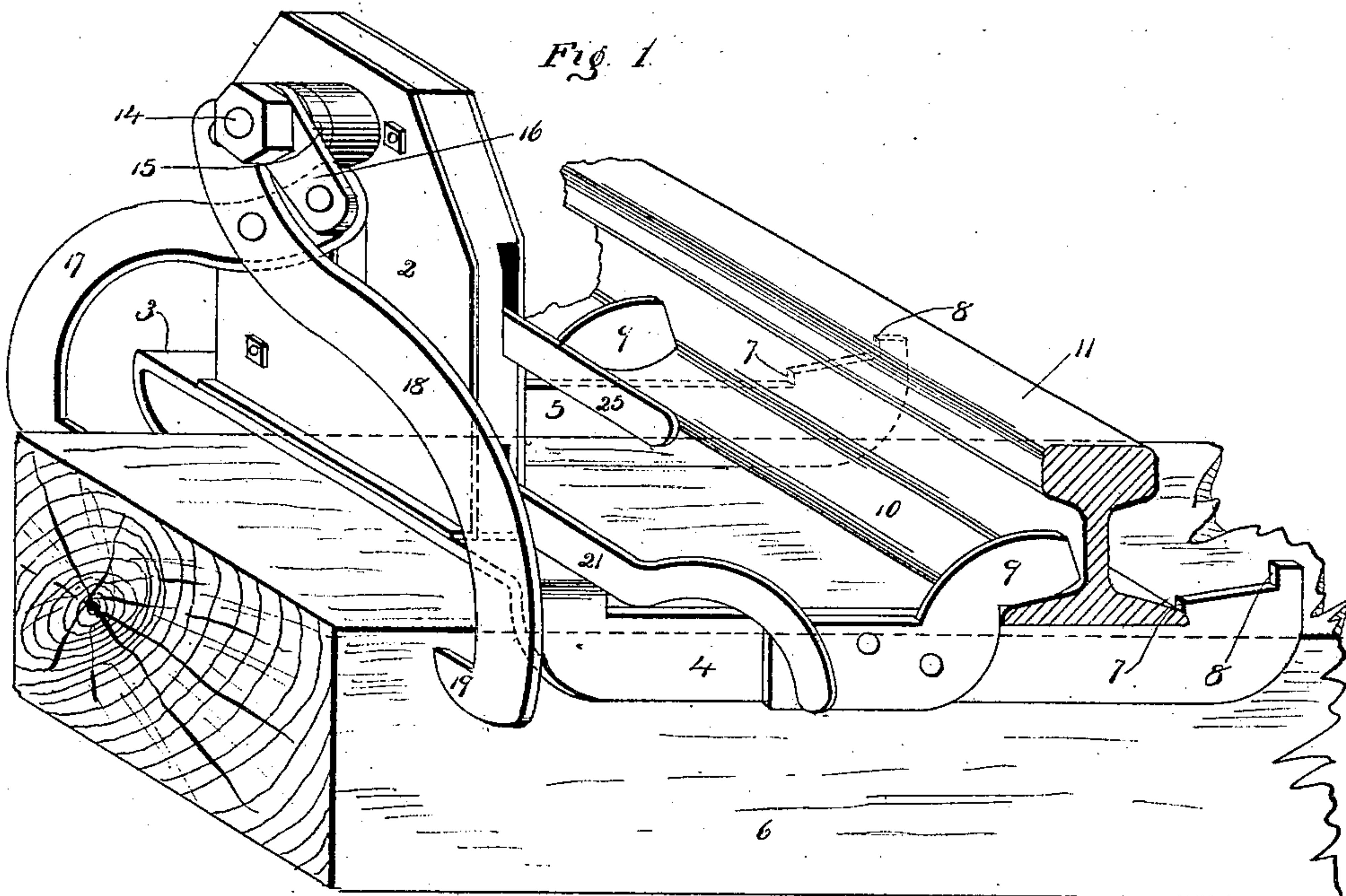


G. COMI.
LIFTING JACK FOR RAILWAY TIES.
APPLICATION FILED JULY 24, 1908.

907,745.

Patented Dec. 29, 1908.



Witnesses.
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UNITED STATES PATENT OFFICE.

GIROLAMO COMI, OF COBALT, CONNECTICUT.

LIFTING-JACK FOR RAILWAY-TIES.

No. 907,745.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed July 24, 1908. Serial No. 445,257.

To all whom it may concern:

Be it known that I, GIROLAMO COMI, a citizen of the United States, residing at Cobalt, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Lifting-Jacks for Railway-Ties; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a perspective view of a lifting jack for railway ties constructed in accordance with my invention and shown as supported by a rail and engaged with a tie. Fig. 2 a broken front view of the device with the tongs and front plate of the housing removed. Fig. 3 a broken view showing the device engaged with a rail at a joint therein.

This invention relates to an improvement in lifting jacks for railway ties, that is for raising a tie into close contact with a rail and holding it while the rail is spiked to the tie. Various devices have been produced for this purpose, but in most of them it is necessary to remove the device when a train is passing, as it is desirable that the device should engage with the rail against which the tie is to be drawn.

The object of this invention is to provide a jack which may be connected with a rail but in such a way that the device may remain in operative position when a train is passing so that neither the movement of the trains nor the operations of the laborer are interfered with; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In carrying out my invention I employ a housing 2 to contain the lifting mechanism hereinafter described. This housing is mounted on a base 3 formed at opposite sides with rearwardly projecting arms 4, 5. These arms are separated from each other corresponding to the width of a wide railway tie and so as to extend on opposite sides of the tie 6 as shown in Fig. 1 of the drawings.

These arms are each formed with shoulders 7 and 8, and attached to each arm is a bearing lug 9. The arms 4 are passed beneath the flange 10 of the rail 11, the lugs 9 extending over the top of the flange 10 the other side of which is engaged by the shoulder 7. In case, however, that one of the bear-

ing lugs should encounter a joint in the rail, the lug would extend onto the joint and the other side be engaged by the shoulder 8 as shown in Fig. 3 of the drawings. In the housing 2 is a block 12 having on one side teeth 13. From the top of this block a stud 14 projects, and mounted on this stud are links 15, 16, and connected with the links are jaws 17, 18, of a pair of tongs the points 19 of which are adapted to engage with a railway tie 6. Mounted in a housing upon a stud 20 is an operating lever 21 to the inner end of which is pivoted a lifting dog 22 adapted to engage with the teeth 13 of the block 12. Mounted in the case near the upper end is a pawl 23 also adapted to engage with the teeth 13 and hold the block in the position to which it is raised by the dog 22 and this pawl is held in place by a spring 24. The end of the pawl also engages with the end of the dog 22. Also mounted in the case and projecting outwardly therefrom is a tripping lever 25 having a slotted arm 26 which engages with a pin 27 on a dog 22, and so that when the tripping lever 25 is raised, it will lift the dog 22 and pawl 23 out of engagement with the block 12 and allow the block to fall.

In operation the device is placed over the tie to be spiked to a rail and the arms passed beneath the rail and so that the lugs 9 and the shoulders 7 or 8 engage with the flange of the rail whereby the device will be supported. The tripping lever 25 will be turned so as to allow the block 12 to drop to its lowest position at which point the jaws 17 and 18 will engage with the opposite sides of the tie. The operating lever 21 will then be moved and the dog 22 engaging with the teeth 13 of the block 12 will lift that block to a certain extent. As it is lifted the pawl 23 rides over the teeth and is brought into engagement with one just above the tooth engaged by the dog 22 and so that when the lever 21 is raised so as to drop the dog 22 downward to engage with another tooth in the block 12 the block will be supported by the pawl 23, and this operation is continued until the tie 12 is brought into close contact with the flange of the rail which may be spiked to it. It will be seen that the housing 2 and lifting mechanism is so far to one side of the rail and so low that it will not interfere with the passage of trains over the rail, and consequently need not be detached therefrom when trains are passing.

To remove the device the tripping lever 25 will be raised, which draws the dog 22 and the pawl 23 out of engagement with the block, allowing that block to fall by gravity, thus releasing the tongs from the tie and allowing the device to be disengaged from the rail.

I claim:—

1. A lifting jack for railway ties comprising a housing, arms extending rearward therefrom, said arms having bearing shoulders, lugs secured to said arms and adapted to engage with the flange of the rail, a block in said housing, gripping tongs connected therewith, a dog engaged with said block, a lever for operating said dog, a pawl also engaged with said block, and means for disengaging the dog and pawl from said block.

2. A lifting jack for railway ties comprising a housing, arms extending rearward therefrom, said arms formed with shoulders to engage with one side of a rail, flanged lugs on said arms adapted to engage with the flanges on the opposite side of the rail, a ver-

tically movable block mounted in said housing, said block formed on one side with teeth, a stud mounted in said block, links on said stud, tong arms connected with said links and with each other, an operating lever mounted in said housing, a dog pivotally connected with the inner end of said lever and adapted to engage with the teeth on said block, a pawl mounted in the upper end of said housing and adapted to engage with the teeth in said block, said pawl extending into engagement with said dog, a releasing lever also mounted in said housing and having a downwardly extending slotted arm engaging with the stud on said dog whereby said dog and pawl may be turned out of engagement with said block, substantially as described.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

GIROLAMO COMI.

Witnesses:

COURTNEY HYDE,
LAURA HYDE.