

No. 864,311.

PATENTED AUG. 27, 1907.

J. P. LANCASTER.
RAILWAY RAIL FASTENING.
APPLICATION FILED JAN. 3, 1907.

3 SHEETS—SHEET 1.

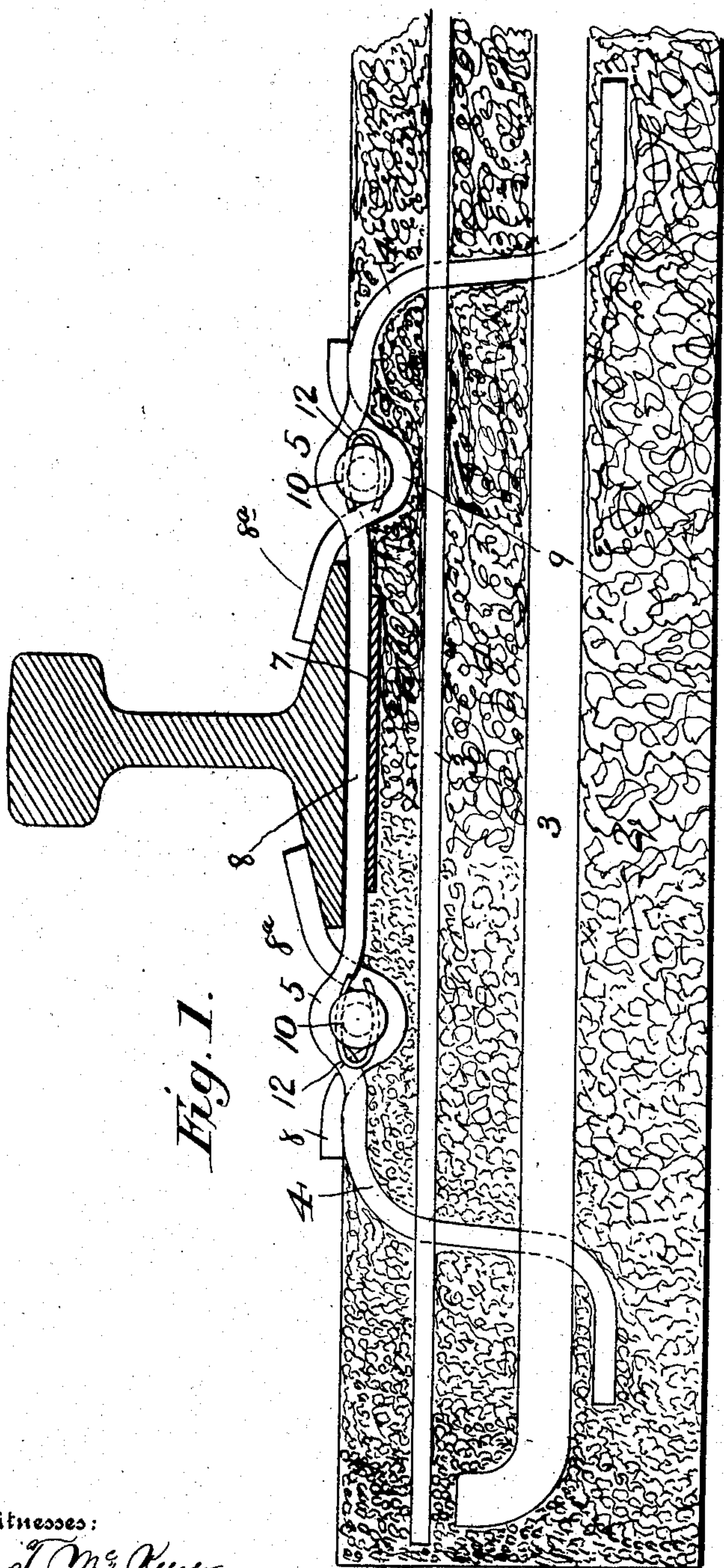


Fig. 1.

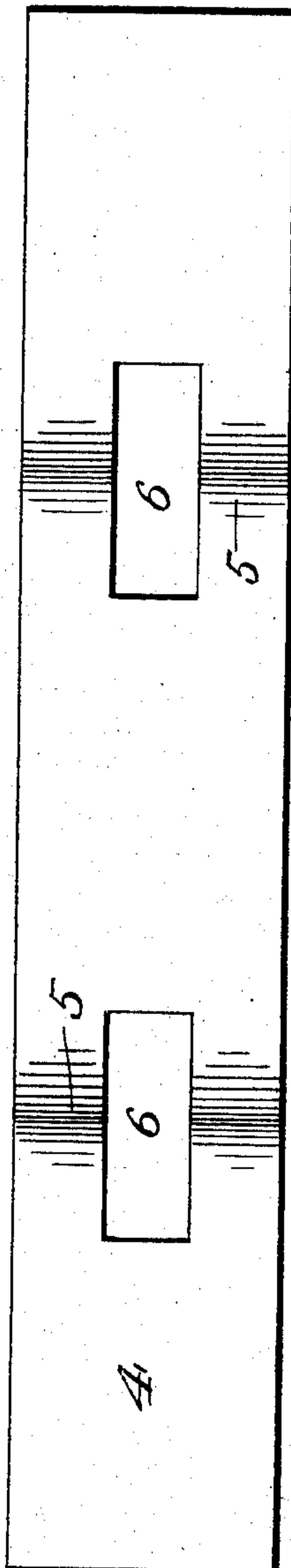


Fig. 2.

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3 SHEETS—SHEET 2.

Fig. 3.

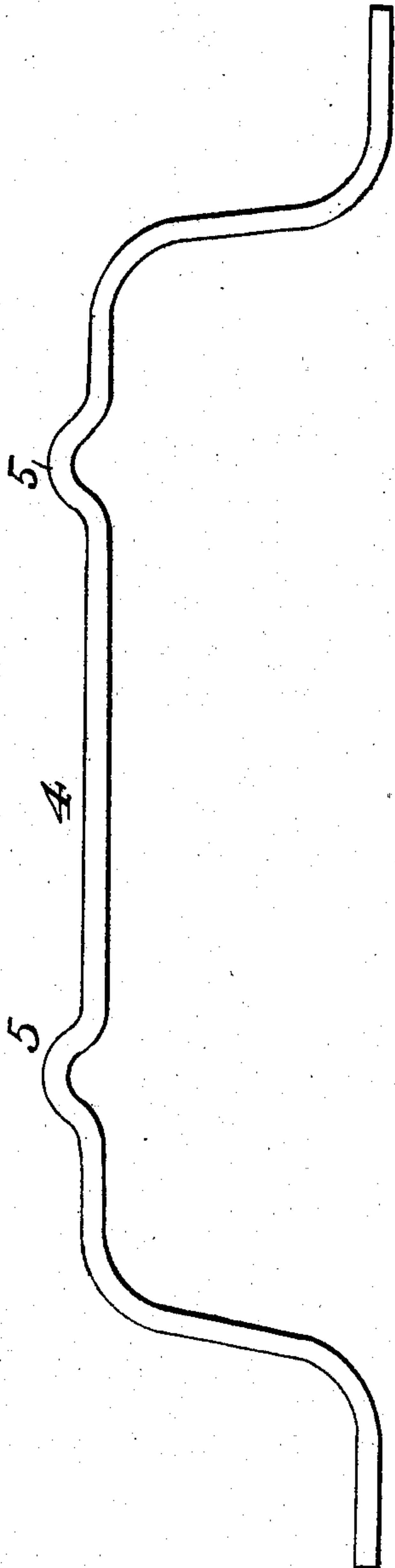


Fig. 4.

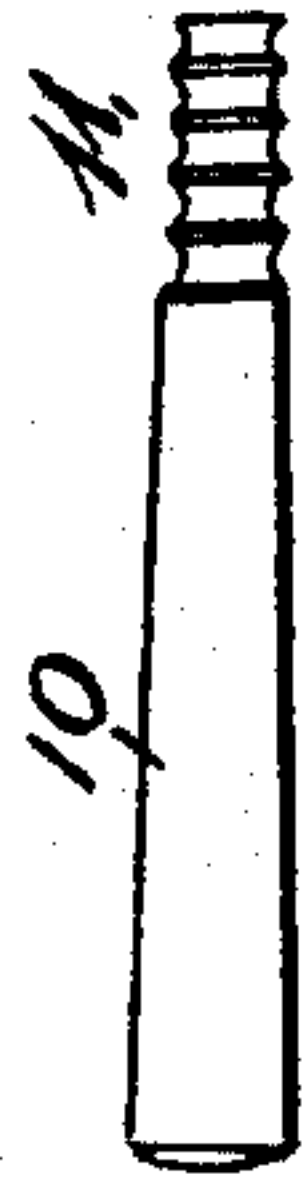


Fig. 5.



Fig. 6.



Fig. 7.

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3 SHEETS—SHEET 3.

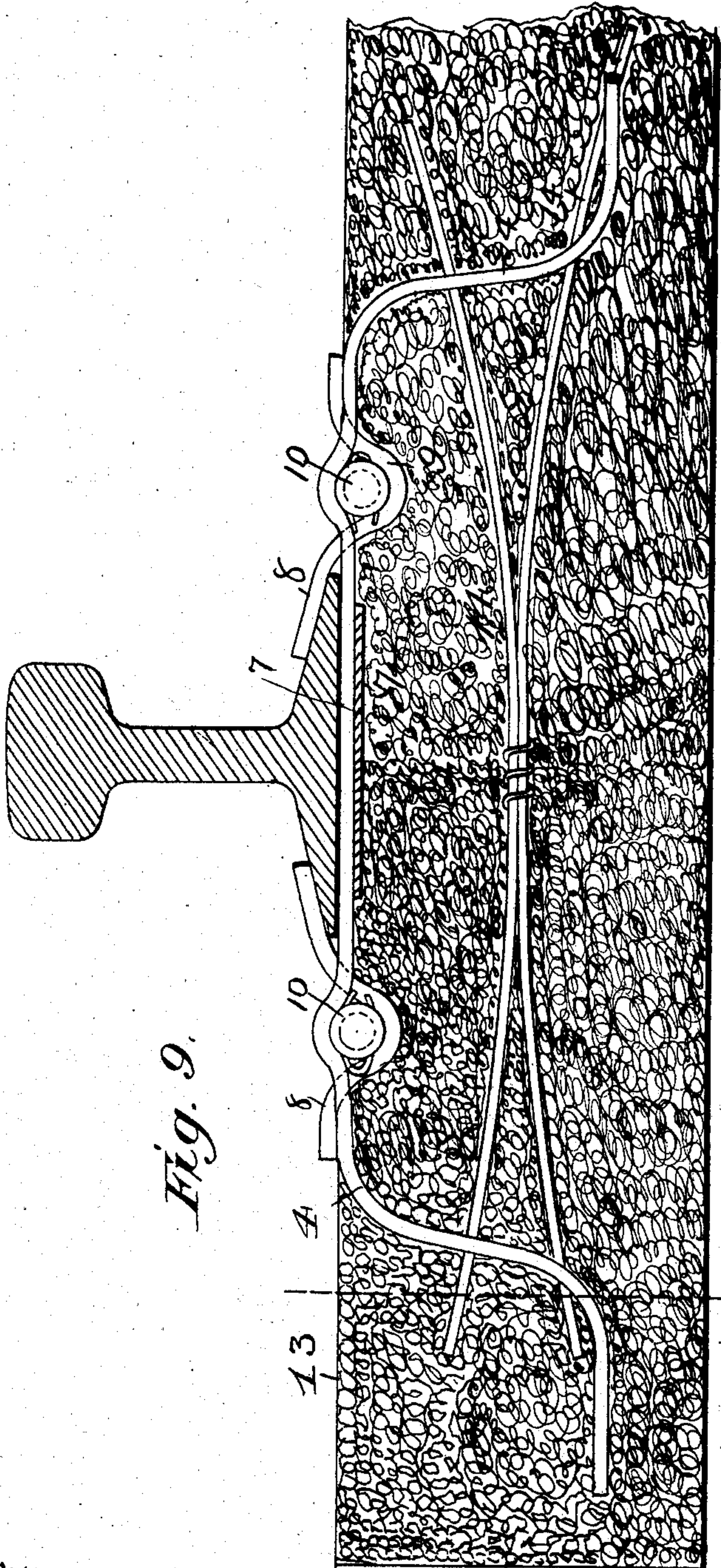


Fig. 9.

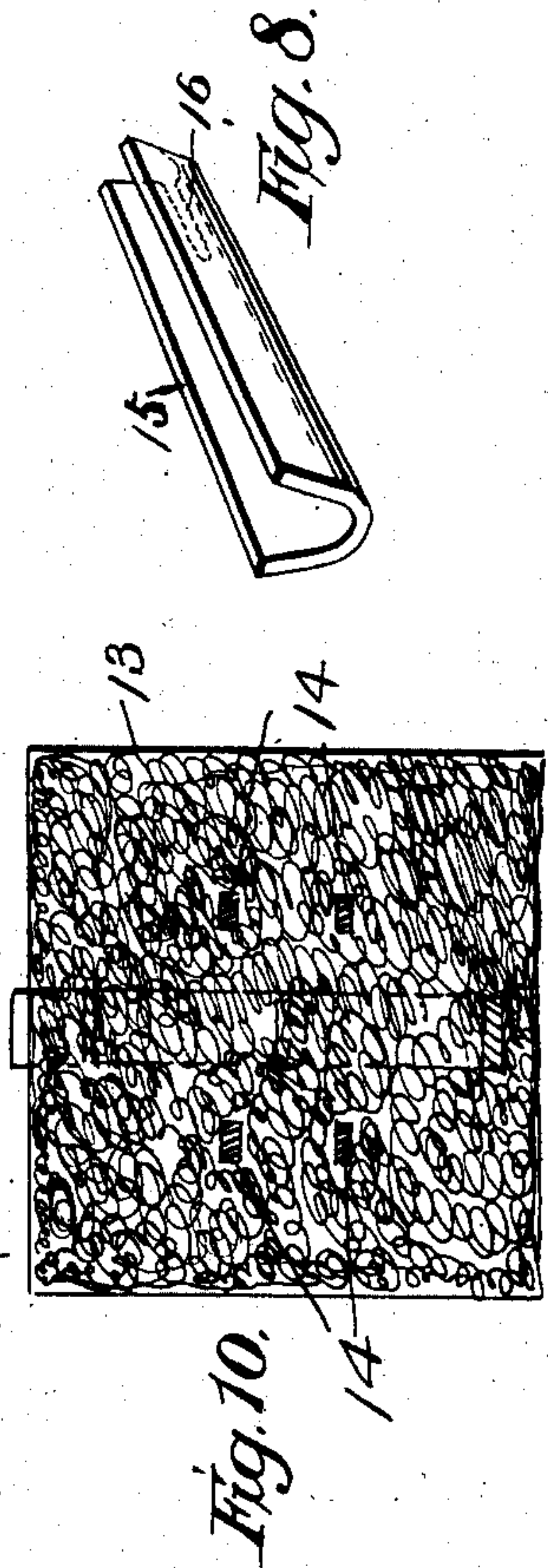


Fig. 8.

Fig. 10.

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UNITED STATES PATENT OFFICE.

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RAILWAY-RAIL FASTENING.

No. 864,311.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed January 3, 1907. Serial No. 350,656.

To all whom it may concern:

Be it known that I, JOHN P. LANCASTER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Railway-Rail Fastenings, of which the following is a specification.

My invention relates to improvements in railroads, more especially fastenings for the rails and embracing the composition-type of tie.

Its objects are to promote simplicity of construction, for facilitating the assembling of the parts, and for the effective retention of the rails in place as against being accidentally displaced, and to carry out these objects at the minimum cost.

Said invention consists of certain features or instrumentalities substantially as hereinafter fully disclosed and specifically pointed out by the claims.

In the accompanying drawing illustrating the preferred embodiment of my invention—Figure 1 is a transverse vertical section produced through a rail and a tie, with said invention in side view, as applied thereto. Fig. 2 is a plan view of one of the slotted interlocking plates or members. Fig. 3 is a side or edge view of said interlocking plate or member. Fig. 4 is a like view of a second interlocking plate or member. Fig. 5 is a separate view of the pin used in connection with the said interlocking plates or members. Fig. 6 is a side or edge view of the pin-retaining clamp. Fig. 7 is a side or edge view of the third plate interlocking member. Fig. 8 is a perspective view of a modified form of clamp or key. Fig. 9 is a further modification showing another form of metal-reinforce concrete tie, produced in longitudinal section, and Fig. 10 is a transverse section thereof.

In the disclosure of my invention, I mold the tie 1 from concrete or like material 2 in the well known way, reinforcing it with metal-pieces, preferably plates 3, embedded therein at suitable intervals apart and extending the length of the tie. The tie has applied to its upper surface a plate 4 for each rail to rest upon, said plate having opposite upward extended or curved portions 5, one arranged upon each side of the rail, and through each of said curved portions is produced an elongated slot 6. Said plate is extended downward and again longitudinally and embedded in the concrete of the tie for effectively anchoring it in the latter. A second plate 7, about the width of the tie and placed thereon, beneath each rail, has a depression 8 of a depth about equal to the cross-section of the plate 4 for receiving, and forming a seat for the latter as clearly disclosed by Fig. 1. A third plate 8^a, curved or looped downward, as at 9, oppositely to the upward-curved portion of each plate 4, is arranged upon each side of the rail and has its downward curved or looped portion 9 let into each slot 6 of said plate 4 and its end-portions

resting upon the tie and the base of the rail, said plates thus conjointly forming an eye, as it were, through which is inserted a pin 10 thereby providing for interlocking all of said plates or members together and accordingly securing the rail in effective position. Said pin is provided with a number of annular corrugations 11 for the more effective engagement therewith of the arms of a bifurcated clamp 12, preferably of rolled soft steel, which, after application to said pin, has its arms bent more or less toward each other for its retention upon said pin, and accordingly securing the latter as against accidental displacement.

In lieu of the aforesaid form of tie, I may use a tie 13 as disclosed by Fig. 9, of like general character, but having its metal-reinforce portion composed of two suitably tied-together groups of bars 14, with the individual bars spread apart toward their end-portions; and intermediately of which groups of bars the downward and longitudinally extended portions of the plates 4 are disposed as shown, the whole being embedded in the concrete of the tie.

As suggested by Fig. 8, I may use, instead of the pin 10, a curved plate-like form of clamp 15 somewhat tapered and preferably also of rolled soft steel, slotted as at 16 to provide, after the insertion thereof in place, for the spreading apart of the limbs thus formed by the use of any suitable tool for the retention of the clamp itself against endwise accidental displacement.

I claim—

1. A railway-rail fastening, embracing a plate having opposite upward-extended portions with slots therein, means for anchoring said plate in place, downward looped plates depending through said slots with their end-portions resting upon the tie and rail, and fastenings effective for locking said plates together.

2. A railway-rail fastening, embracing a plate having opposite upward curved portions with slots therein, means for anchoring said plate in place, an additional plate having a depression forming a seat for the aforesaid plate, beneath the rail, downward looped plates depending through said slots, with their end-portions resting upon the tie and rail, and slotted tapered clamps inserted through the eye formed by the assemblage of said plates.

3. A railway-rail fastening, embracing a plate having opposite upward-curved portions, with slots therein, means for anchoring said plate in place, a plate having a depression forming a seat for the aforesaid plate, beneath the rail, downward looped plates let into said slots, with their end-portions resting upon the rail and the tie, means for interlocking said plates, said plate anchoring means comprising groups of reinforcing plates, each group of plates being tied together and having spread-apart end-portions intermediately of which are disposed the depending portions of the first-referred to plate.

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

JOHN P. LANCASTER.

Witnesses:

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