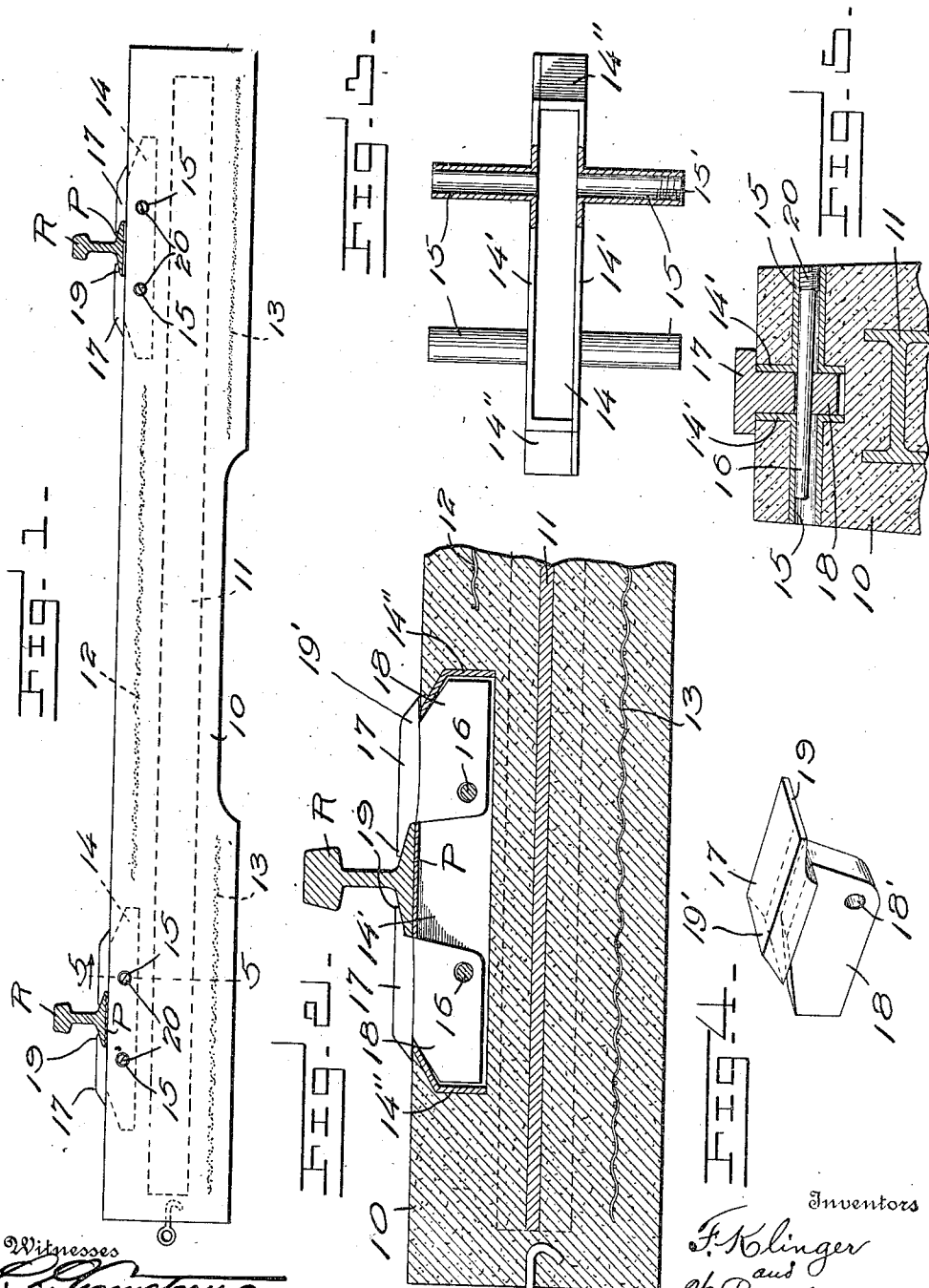


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RAILROAD TIE.
APPLICATION FILED JUNE 21, 1911.

1,011,064.

Patented Dec. 5, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS KLINGER AND WILLIAM RETALLICK, OF WILLIAMSTOWN, PENNSYLVANIA.

RAILROAD-TIE.

1,011,064.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed June 21, 1911. Serial No. 634,571.

To all whom it may concern:

Be it known that we, FRANCIS KLINGER and WILLIAM RETALLICK, citizens of the United States, and residents of Williamstown, in the county of Dauphin and State of Pennsylvania, have invented new and useful Improvements in Railroad-Ties, of which the following is a specification.

This invention relates to composite railroad ties and the means for securing the usual rails thereto in an easy and substantial manner, and the invention consists in the novel features of construction herein-after fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a tie with the rails secured thereto; Fig. 2 is a longitudinal vertical section of one end of the tie, showing parts of the clamping devices in elevation; Fig. 3 is a plan view, partly in section, of the clamp casing; Fig. 4 is a detail perspective of one of the clamping dogs, and Fig. 5 is a vertical transverse section on the line 5—5 of Fig. 1.

Throughout the following description and on the several figures of the drawings similar parts are referred to by like reference characters.

Referring to the drawings the numeral 10 indicates a railroad tie which may be made of any suitable material, such as concrete or asbestos composition reinforced by a central metallic beam 11 and sheets of netting or reticulated matter 12 and 13. Near each end of the upper portion of the tie is embedded, as in the process of formation of the tie, a strong metallic casing 14, comprising counterpart side plates 14', each having an integral end piece 14''. Each of the side plates has a pair of tubular extensions 15 projecting therefrom laterally to the adjacent side of the tie, the extensions of the respective side plates being in alinement with each other on opposite sides for the reception of a tapered clamping pin 16.

Associated with each casing 14 are a pair of clamping dogs 17. Each dog comprises a shank 18 which extends downward between the casing plates 14' and has a transverse hole 18' adjacent the alined bores of opposite extensions 15, though slightly eccentric thereto. Each dog also includes a jaw 19 adapted to engage over the base flange of the rail R which may rest upon the upper surface of the tie, or if

desired upon a plate P, thereafter the outer end 19' of the jaw overlapping or spanning the upper edge of the casing end 14''. The outer end of the shank 18 extends beneath the adjacent casing end 14''. When the rail is put in place upon the tie the dogs are slipped into place with their shanks projecting into the casing, bringing the hole 18' adjacent the bores of the extensions 15. The pins are driven snugly into place as indicated in Fig. 5 especially, the taper of which will draw the clamping dogs tightly down upon the casing and the base flange of the rail, thereby securing it in place. In some instances it may be desirable to employ only one clamping dog of the character indicated at each end of the tie and provide any other suitable fixed member to cooperate with it. In other words, assuming that one of the dogs is a fixture, the rail might be slipped into place thereunder and then secured on the opposite side by the dog 17 in the manner above indicated. The pins 16 may be prevented from longitudinal displacement in any desired manner, but as shown one of the extensions 15 is internally threaded at 15' for the reception of a threaded plug 20 adapted to abut against the larger end of the pin wherever it may be after being driven snugly in place, but which plug may easily be withdrawn by a wrench or other tool in order to drive out the pins whenever it is desirable to disconnect the rails from the ties.

The several parts of the fastening devices may be made of any suitable materials, and the relative sizes and proportions thereof may be modified to a large extent without departing from the spirit of the invention hereinafter claimed.

Having thus described a preferred embodiment of the invention, what we claim as new and desire to protect by Letters Patent of the United States is:

1. The hereindescribed railroad tie comprising a composite body, a metallic casing embedded therein, tubular extensions extending laterally from the casing to the sides of the tie in alinement with each other, means associated with one end of the casing to clamp one edge of the base flange of the rail, a dog having a jaw embracing the opposite edge of the base flange and having a shank extending into the casing and having a hole slightly eccentric to the bore of the said tubular extensions, said jaw having

a portion overlapping the upper edge of the casing and a tapered pin adapted to be driven through said extensions and shank hole to bind the dog in place, substantially
5 as set forth.

2. The combination with a railroad tie and a rail thereon, of clamping means for the rail including a casing having lateral tubular extensions, a dog adapted to embrace the base flange of the rail and having
10 a shank extending into the casing between said extensions, a pin driven through said

extensions and shank, and a plug fitted into one of the extensions to prevent displacement of the pin, substantially as set forth.

In testimony whereof we have hereunto affixed our signatures in the presence of two subscribing witnesses.

FRANCIS KLINGER.
WILLIAM RETALLICK.

Witnesses:

WM. G. STOKES,
S. S. STRAUB.