D. W. BOWE.

MOLD FOR RAILWAY STRINGERS.

APPLICATION FILED OCT. 1, 1919.

1,329,362.

Patented Feb. 3, 1920.

2 SHEETS—SHEET 1.

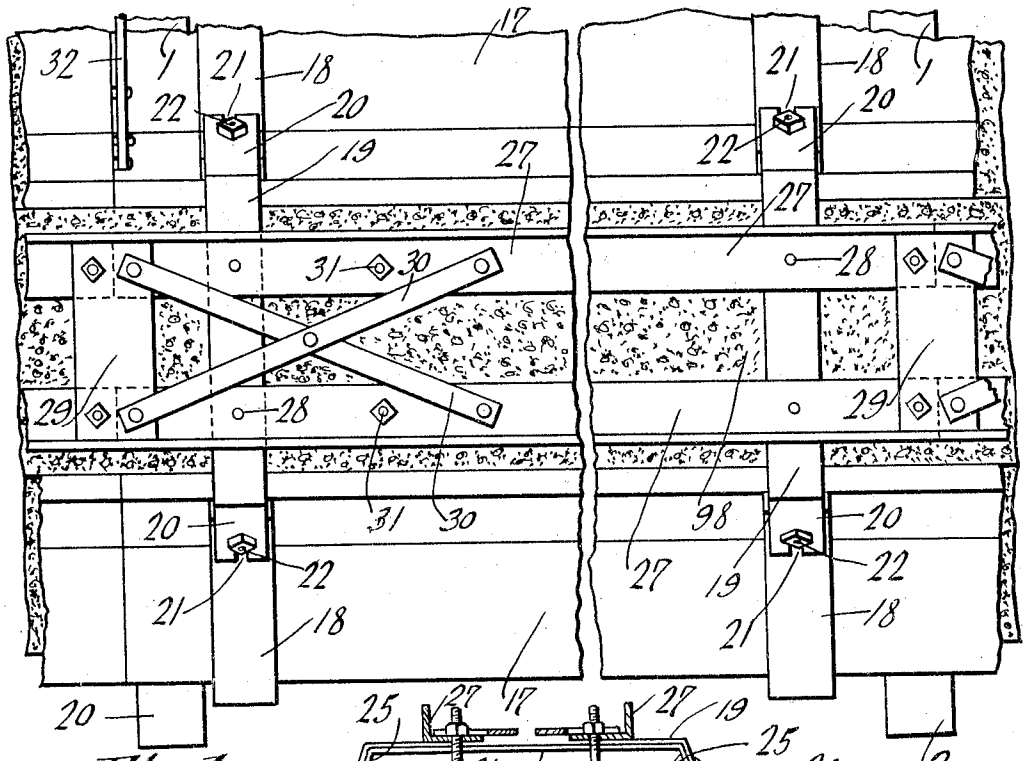

Fig. 1.

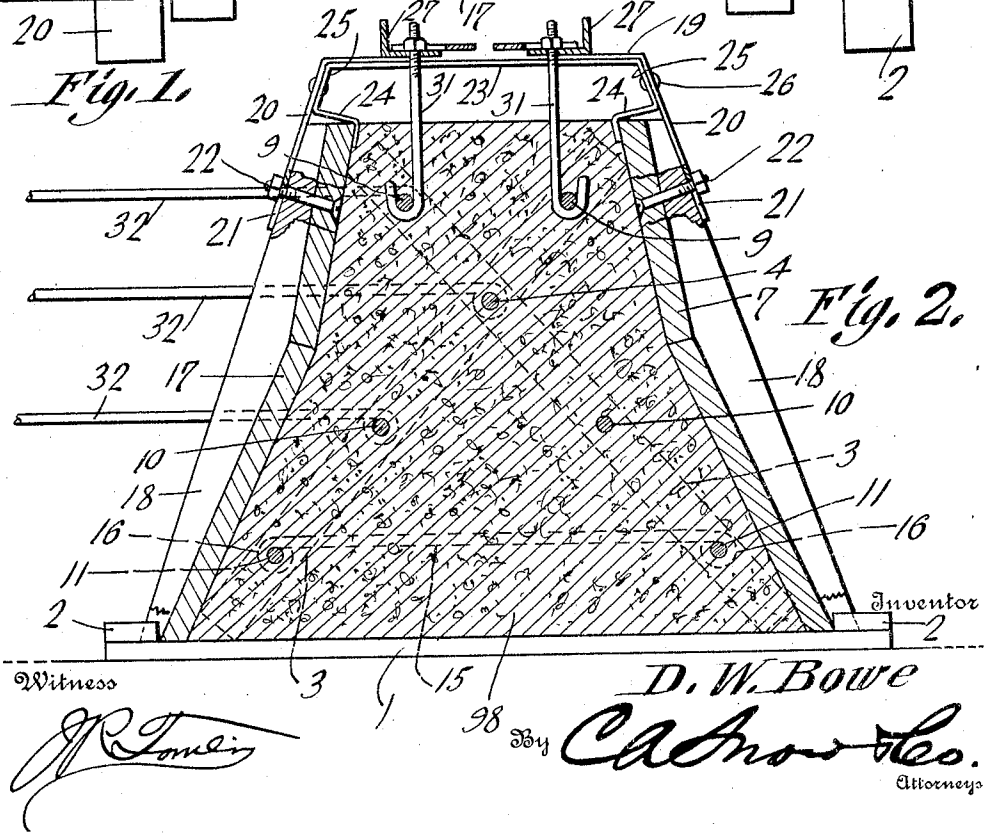

Fig. 2.

Witness

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2 SHEETS—SHEET 2.

Fig. 3.

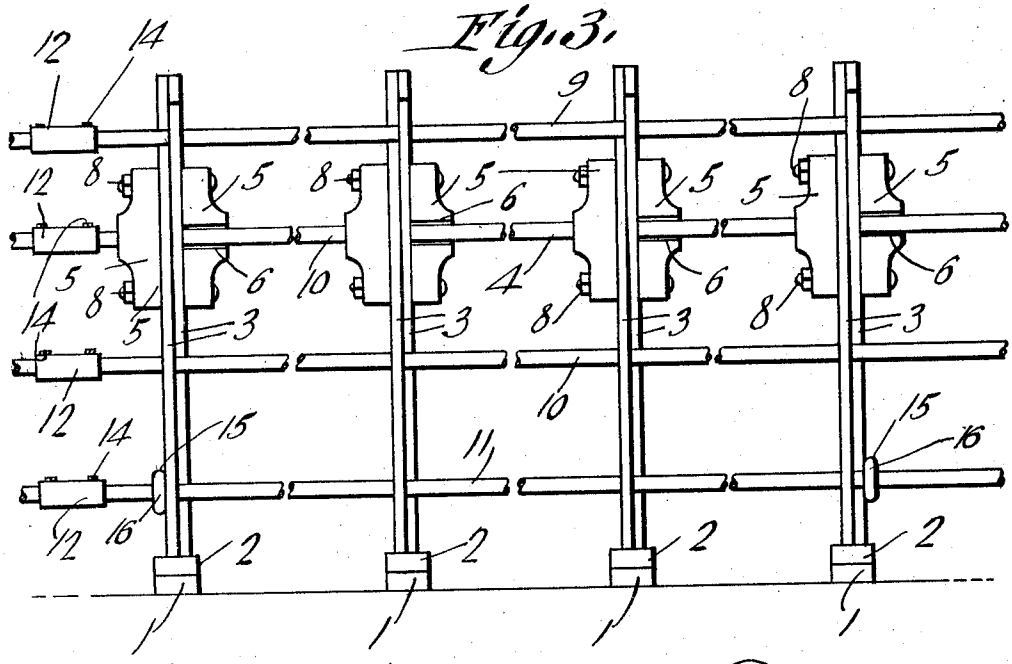

Fig. 5.

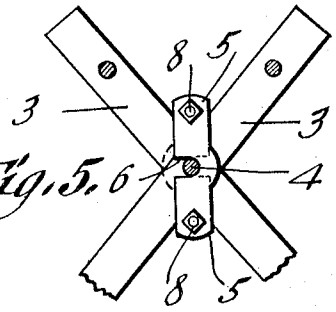

Fig. 4.

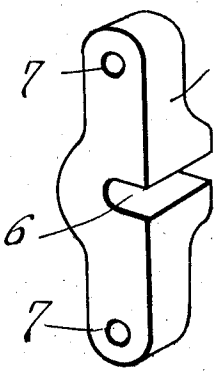

Fig. 6.

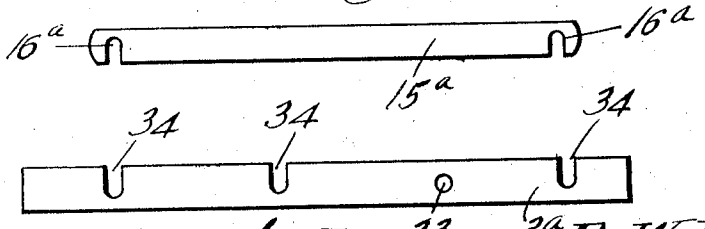

Fig. 7.

Witness

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UNITED STATES PATENT OFFICE.

DAVID W. BOWE, OF DETROIT, MICHIGAN.

MOLD FOR RAILWAY-STRINGERS.

1,329,362. Specification of Letters Patent. Patented Feb. 3, 1920.

Application filed October 1, 1919. Serial No. 327,786.

To all whom it may concern:

Be it known that I, DAVID W. BOWE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Mold for Railway-Stringers, of which the following is a specification.

It is the object of this invention to provide a novel mold for the formation of railway stringers and the invention aims, further, to provide a tie reinforced in a novel way.

A mechanic may make changes in the structure shown, within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—Figure 1 shows in top plan, a device constructed in accordance with the invention; Fig. 2 is a cross section; Fig. 3 is a side view of the reinforcement and attendant parts; Fig. 4 is a perspective showing the clamp; Fig. 5 is a fragmental section showing the clamp in position; Fig. 6 is an elevation disclosing a modified tie member; Fig. 7 is an elevation depicting a modified support.

The invention comprises base bars 1 having upstanding terminal projections 2. The lower ends of crossed supports 3 rest on the base bars 1. The members of some or all of the pairs of the supports 3 are connected temporarily by clamps 5 having notches 6 receiving first rods 4 loosely mounted in the supports 3 at their place of crossing, rods 11 having likewise been mounted in the supports 3. The clamps 5 have openings 7 receiving bolts 8 holding the clamps in place. By means of the clamps 5 some or all of the supports 3 are held in place while rods 9 and 11, are being mounted in the supports, all of the rods being loosely mounted in openings in the supports. The rods 4, 9, 10 and 11 may be made in sections, united by sleeves 12 and securing devices 14. At intervals, the rods 11 may be connected transversely by lower ties 15 having eyes 16 receiving the rods 11. In place of the ties 15, it may be expedient to use the modified tie 15^a of Fig. 6, the same being in the form of a strip having notches 16^a adapted to receive the rods 11. The supports may be in the form shown at 3^a in Fig. 7, each support having an opening 33 for the rod 4 and notches 34 receiving the rods 9, 10 and 11.

Side plates 17 are provided and are engaged at their lower edges, against outward movement, by the projections 2 of the base bars 1, the side plates resting on the base bars. The lower ends of the supports 3 prevent the lower edges of the side plates 17 from moving inwardly, and the upper ends of the supports hold the upper edges of the side plates from moving inwardly before a top member, hereinbefore described, is engaged with the side plates. The side plates 17 are reinforced by external transverse cleats 18.

The invention comprises a top member embodying upper bridges 19 having depending ends 20 engaging the outer edges of the cleats 18 and provided with notches 21 receiving clamp bolts 22 mounted in the plates 17 and in the cleats 18. Lower bridges 23 coöperate with the upper bridges 19 and include depending ends 25 bearing against the upper portions of the ends 20 of the bridges 19 the parts above alluded to being united by securing elements 26. The parts 25 of the lower bridges 23 merge into angular arms 24 engaging the inner surface of the plates 17 at their upper edges. The top member comprises angle bars 27, the horizontal flanges of which are connected by securing members 28 with the bridges 19 and 23. The angle bars 27 are connected at intervals by transverse pieces 29 and by crossed braces 30. Retainers, such as hook bolts 31, are mounted in the horizontal flanges of the angle bars 27 and engage the rods 9 to aid in holding the supports 3 in place. Lateral rods 32 may be extended laterally from the rods 9, 4 and 10, to connect the stringer at one side of the track with the stringer at the opposite side of the track.

After the mold has been set up, and after the clamps 5 have been removed, the concrete 98 is shoveled or deposited otherwise between the side plates 17, the rods 9, 4, 10 and 11 being embedded in the concrete, along with the supports 3. The lower ends of the hook bolts 31 remain embedded in the concrete, and may be used to hold rail chairs of any desired construction in place. The bolts 22 are slacked away and the top is

lifted off the plates 17, the bolts sliding out of the notches 21. The side plates 17 then may be removed, leaving the completed concrete stringer.

The supports 3 not only reinforce the completed tie, but, as well, constitute a part of the mold, since they brace and sustain the side plate 17 of the mold. The hook bolts 31 are not mere rail retainers, but constitute a part of the mold, in that they aid in holding the supports 3 of the mold in place.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, base members having projections; side plates having their lower edges engaged with the projections against outward movement; crossed supports between the side plates, the lower ends of the supports engaging the side plates adjacent the lower edges thereof to prevent the side plates from moving inwardly, the upper ends of the supports engaging the side plates adjacent the upper edges thereof; means for connecting the supports at their place of crossing; and a top above the side plates and including a bridge detachably engaged with the upper edges of the side plates.

2. In a device of the class described, side plates; means for connecting the lower edges of the side plates; crossed braces between the side plates and engaged at their upper and lower ends with the side plates; and a top member having means for engaging the upper edges of the side plates detachably, the braces constituting a sustaining means for the side plates before the top member is mounted in place.

3. In a device of the class described, side plates; securing devices carried by the side plates; and a top member comprising a bridge, the bridge including a part engaging the inner surface of each side plate, and a part engaging the outer surface of each side plate, the last specified part having an open-ended notch receiving one of the securing devices.

4. In a device of the class described, side plates; crossed supports between the side plates and retaining the side plates against inward movement; means for connecting the supports at their place of crossing; rods mounted in the supports; a top member superposed on the side plates; and retainers carried by the top member and engaging the rods.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DAVID W. BOWE.

Witnesses:
I. E. SIMPSON,
AGNES ROCKELLI.