Sept. 8, 1925. 1,552,981

G. B. BOSCO

CHAIR FOR FLOOR SLEEPERS

Filed March 31, 1924

Fig. 1.

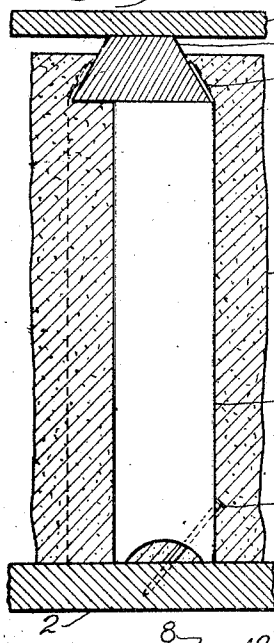


Fig. 2.

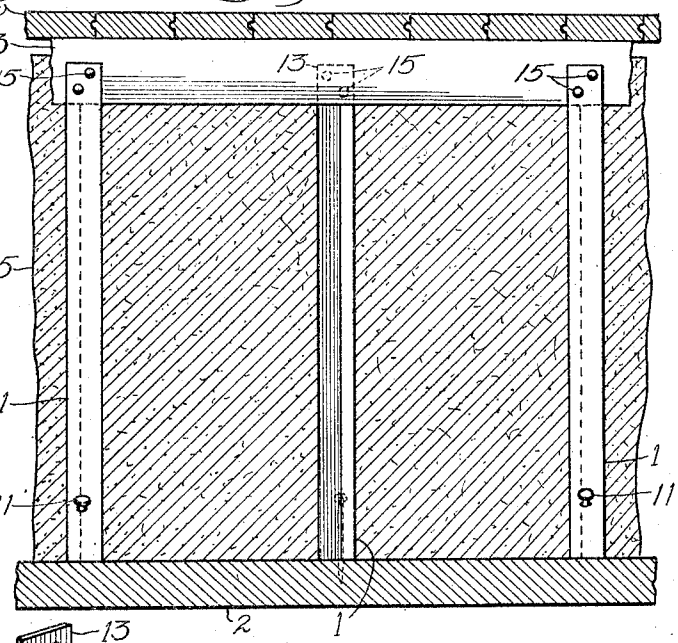


Fig. 3.

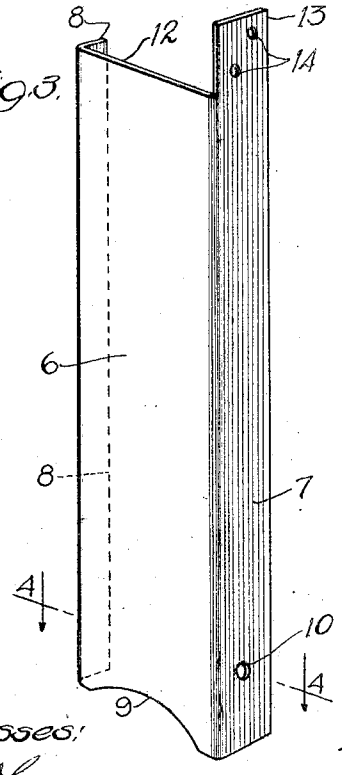
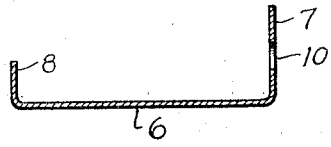


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE B. BOSCO, OF CHICAGO, ILLINOIS.

CHAIR FOR FLOOR SLEEPERS.

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To all whom it may concern:

Be it known that I, GEORGE B. BOSCO, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Chairs for Floor Sleepers, of which the following is a specification.

The main objects of this invention are to provide improved means for supporting and anchoring floor sleepers used in concrete construction work; to provide supporting and anchoring means of this kind which will permit the pouring of all of the concrete in one operation instead of two pouring operations required with sleeper chairs heretofore in use; to provide an improved form of chair for floor sleepers which will permit all of the sleepers to be accurately set up and alined, ready for use, before the concrete slab is poured; to provide a sleeper chair which is durable in construction, inexpensive to manufacture, and which may be readily set up even by unskilled labor; and to provide an improved method of mounting floor sleepers in concrete floor slabs.

An illustrative embodiment of this invention is shown in the accompanying drawings, wherein:

Figure 1 is a side elevation of one of the chairs; the sleeper, floor, concrete slab, and mold being shown in section.

Fig. 2 is a vertical section of the floor slab showing a plurality of the chairs arranged in staggered relation; the sleeper and chairs being shown in elevation.

Fig. 3 is an enlarged perspective of one of the chairs.

Fig. 4 is a transverse section of the same, taken on the line 4—4 of Fig. 3.

Heretofore, two principal methods have been used in laying concrete floor slabs wherein the floor sleepers are anchored in the concrete. In the first method, after the concrete has been poured into the mold and before it has had a chance to set or become hard, anchors for the floor sleepers are laid in the top of the wet concrete. Then, after the first pouring of concrete has thoroughly set, the sleepers are laid on the anchors and secured thereto. After the sleepers have been leveled, additional concrete is poured on top of the first slab so as to embed all of the anchors and partially embed the sleepers to prevent their withdrawal. This top slab of concrete merely rests on top of the bottom slab and is a dead weight to the floor. This method of laying floors is very unsatisfactory and involves a large amount of time and expense. The anchors must be placed on the rough concrete with great care in order to have them all on a level. If the anchors are not properly laid, it is difficult to bring all the sleepers to a level for laying the finished floor.

In the other old method above mentioned, the rough concrete is molded and after the concrete has partially set, the floor sleepers are laid on top of the slab and nailed thereto. Additional concrete is then poured on top of the first slab so as to partially embed the sleepers. This method is also very unsatisfactory because if the first slab of concrete is set too hard, the nails cannot be driven into it, and if it is not hard enough the nails will not hold sufficiently to properly anchor the sleepers. Also, the additional slab of concrete is expensive and is merely a dead weight on the floor without adding any strength to the structure.

Applicant's improved method involves the use of a sleeper chair which is directly supported on the form so that the chairs and sleepers may all be set up before any of the concrete is poured. All of the concrete is then poured in one operation so as to make a single floor slab which embeds the chairs and partially embeds the sleepers. This method of setting up the chairs and sleepers before pouring the concrete permits the sleepers also to be used for supporting temporary runways over which the buggies may be trundled when the concrete is poured.

In the specific construction herein shown, the invention involves the use of a plurality of chairs 1 supported in an upright position on the bottom of a form 2, for anchoring a plurality of floor sleepers 3 supported on the upper ends thereof and on which the floor 4 is laid after the concrete has been poured and properly set to form the floor slab 5.

As herein illustrated, the chair 1 is channel-shaped to provide a central web 6 and side flanges forming legs 7 and 8 arranged to permit the chair to stand on the form 2 in an upright position. These channels are preferably stamped out of sheet metal. To facilitate the leveling of the lower edges of the legs 7 and 8, the web 6 is recessed at its lower edge as shown at 9. Formed in the leg 7 adjacent the lower end of the chair, is an aperture 10 for receiving a nail 11 where-

by the chairs are toed to the form 2 for holding them in an upright position during the pouring of the concrete.

The upper edges of the web 6 and leg 8 form a bearing 12 for supporting the sleepers 3. The flange 7 projects beyond the upper edge 12 of the chair to form a lug 13, which is adapted to be bent into position to overlap the sleeper 3. Formed in the lug 13, is a pair of apertures 14 for receiving nails 15, or other suitable fastening means which are driven into the sleeper 3 for securing the sleeper to the chair.

The sleepers 3 are wooden strips arranged in parallel spaced relation to form a supporting grid for the floor boards 4.

In operation, after the form 2 has been set up, the chairs 1 are nailed to the sleepers 3. The chairs are spaced apart at regular intervals along the sleepers and are alternately arranged so that the lugs 13 are disposed alternately on opposite sides of the sleeper. The chairs are then set up on the bottom of the form 2 and toed thereto by nails 11. Planks, not shown, may then be laid loosely across the sleepers to form a temporary runway over which the buggies of concrete may be wheeled. The form is filled with concrete to a level above the chairs so as to completely embed the chairs and partly embed the sleepers, as shown in Figures 1 and 2. When the concrete is properly set, the form 2 is removed and the projecting ends of the nails 11 may be clipped off. The floor boards 4 are then laid on top of the sleepers.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claim.

I claim:

A device of the class described for use in supporting and anchoring floor sleepers, comprising a channel-shaped chair adapted to be supported on end in an upright position on the form of a floor slab, said chair having an aperture formed in one leg thereof adjacent its lower end to receive a nail for securing said chair to the form, and a lug projecting beyond the upper end of said chair and having an aperture therein to receive a nail for attachment to a sleeper.

Signed at Chicago this 27 day of March, 1924.

GEORGE B. BOSCO.