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FLOOR LAYING DEVICE

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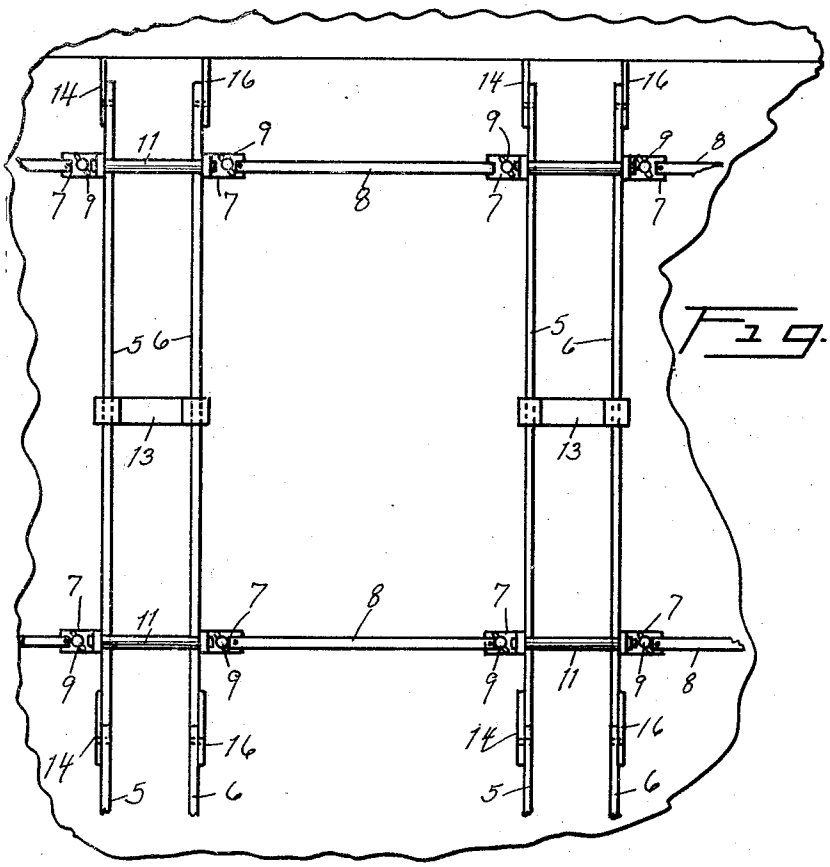


Fig. I.

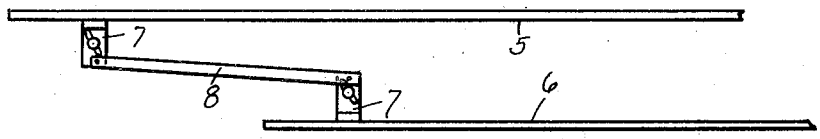


Fig. II.

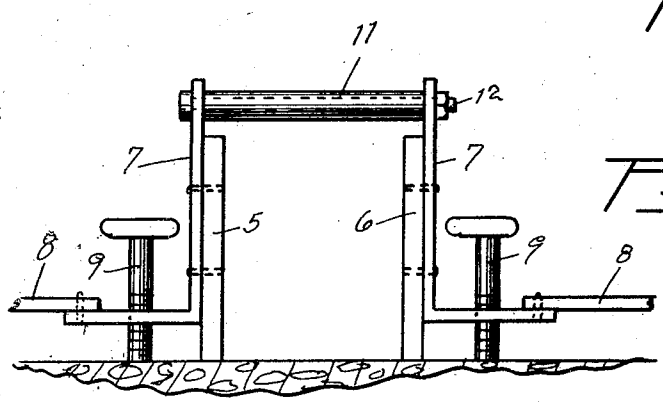


Fig. III.

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UNITED STATES PATENT OFFICE.

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FLOOR-LAYING DEVICE.

Application filed April 2, 1926. Serial No. 99,341.

This invention relates to improvements in floor laying devices and has particular reference to a frame which when laid upon a concrete floor forms a mold in which sleepers may be cast, in counter-distinction to the ordinary wooden sleeper now merely laid upon a concrete floor.

The principal object of this invention is to provide means whereby all of the sleepers will be level thereby permitting a floor to be evenly laid.

Another object is to provide sleepers which will have a one hundred per cent bearing, in counter-distinction to the ordinary wooden sleeper which has to be shimmed wherever the supporting floor may be low.

An additional object is to provide a mold frame which may readily be collapsed for the purpose of removing and transporting the same from place to place.

A still further object is to produce a mold which may be associated with similar molds in end to end relation thereby forming sleepers of any desired length.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure I is a top plan view of our mold frames as they would appear upon a concrete floor,

Figure II shows the manner in which our mold frames may be collapsed, and

Figure III is an enlarged detail view looking at the end of one of our mold frames and showing the spacing arrangement.

In the laying of a wooden floor over a concrete floor, it has been common to lay sleepers upon the concrete floor. These sleepers consisted merely of boards spaced a predetermined distance apart and due to the fact that a concrete floor is very seldom level being high in spots and low in others, it was necessary to place shims or wedges at various points beneath these wooden sleepers, the result being that when the wooden floor was laid upon the sleeper and nailed thereto, these wooden wedges or shims would be misplaced, slipping out from beneath the sleepers which resulted in a springy floor at this point. It also resulted in the floor having waves therein, due to the fact that the sleepers slipped at certain points.

In order to prepare a more satisfactory sleeper we have constructed molds which may be laid upon a concrete floor, then leveled so that the top of the molds are all level with respect to each other, after which a plastic composition is poured within the mold, which plastic composition will, of course, have a one hundred per cent bearing upon the concrete floor. The composition employed is of such a nature that a floor may be nailed thereto, the composition being capable of receiving the nails and firmly holding the same after being driven therein.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of our invention, the numerals 5 and 6 refer to vertically disposed mold boards which are arranged in parallel alignment as illustrated to best advantage in Figure I.

These mold boards each have secured thereto angle irons as shown at 7, while links 8 extend between the angle irons of two of the mold boards and are pivotally hinged thereto. This pivotal arrangement permits the mold boards to be moved to and away from each other, as illustrated in Figure II, either for the purpose of removing the frames after a sleeper has been formed or for the purpose of transporting the molds. These angle iron members 7 are secured to the mold boards in any convenient manner and by viewing Figure III, it will be noted that the angle iron members are spaced a short distance above the bottom of the mold boards and that each angle iron carries an adjusting screw 9.

The purpose of these adjusting screws is to support the mold boards in such a manner that they may be individually adjusted in order to cause the tops of the same to be level.

In order to properly space two adjacent mold boards, we provide a tubular spacer 11 which is adapted to be positioned between the upstanding ends of the angle irons, while a bolt 12 serves to hold the spacer in place and at the same time prevent the mold boards from spreading.

We have shown a clip at 13 which is adapted to be positioned between the mold boards at a point substantially midway of their length. This clip may be U-shaped

or any other shape capable of preventing the springing of the mold boards. We have also shown plates at 14 and 16 which plates are secured to the ends of the mold boards 5 and 6, respectively, the purpose of which is to permit the end alignment of two or more mold boards.

After a mold has been constructed in accordance with our invention and it is desired to lay sleepers upon a concrete floor, several of the molds are assembled as indicated in Figure I, after which a plastic composition, such as magnesite, is poured between the mold boards 5 and 6 and allowed to harden. After the same has become properly hardened, these mold boards, forming the adjacent side walls of two of the sleepers, are caused to move toward each other through the action of the links 8, at which time the mold may be removed and a floor laid upon the sleepers, the same being nailed directly to the sleeper.

It will thus be seen that with the use of our molds, it is possible to construct a floor supporting surface upon a concrete floor, a supporting surface having a hundred per cent bearing and one which will not deteriorate which is often the case with wooden sleepers which are often laid upon wet concrete and the result is a dry rot which permits the floor to spring.

It is to be understood that the form of our invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described our invention, we claim:—

In a mold of the character described, a pair of vertically disposed mold boards, angle iron members secured to said mold boards, said angle iron members having one portion thereof horizontally disposed, a link extending between said horizontal portions of said adjacent angle iron members mounted upon the respective mold board, means for separating said mold boards from a similar set of mold boards positioned adjacent thereto and in the same plane therewith, said means comprising a tubular spacer adapted to engage the upper extremity of said angle iron members mounted upon the adjacent mold boards, and an adjusting screw carried in the horizontal portion of each of said angle iron members, said screws being capable of contacting the supporting surface upon which said mold boards are positioned.

In testimony whereof we affix our signatures.

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