June 1, 1926. 1,587,355

H. W. RAUN

ANCHOR FOR SLEEPERS

Filed Feb. 14, 1923

Fig. 3

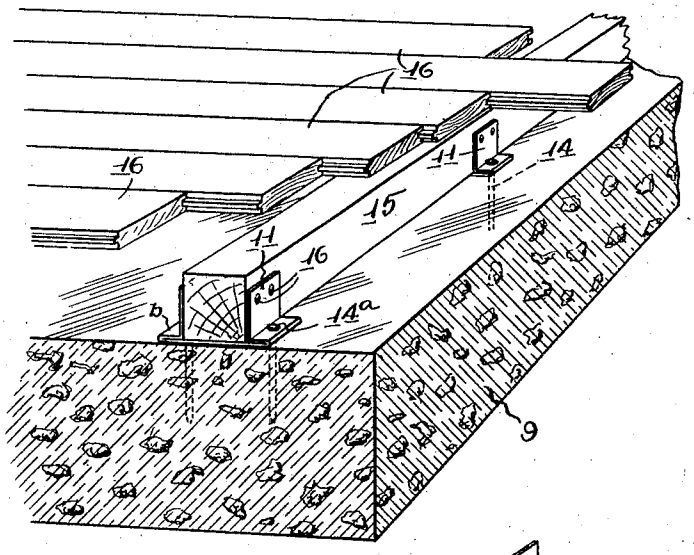


Fig. 1

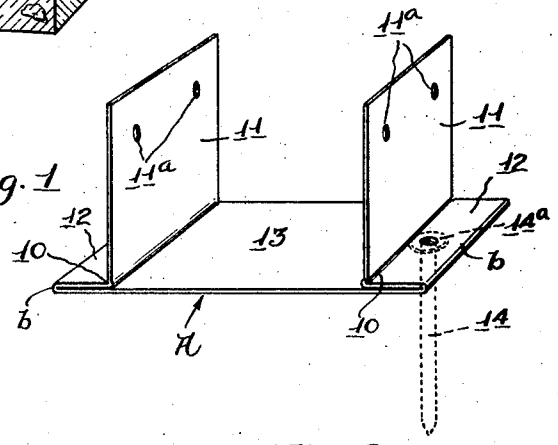


Fig. 4

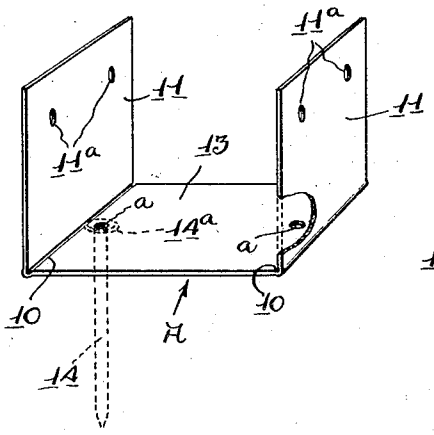
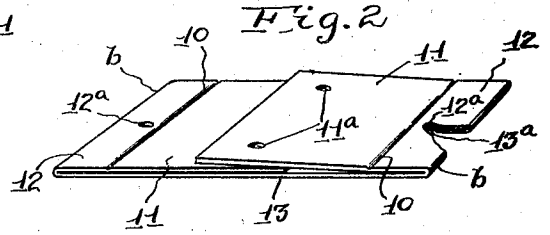


Fig. 2



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UNITED STATES PATENT OFFICE.

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ANCHOR FOR SLEEPERS.

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In modern building construction, the laying of wood floors on concrete is attended with difficulties resulting in excessive cost and often in defective construction. In some instances, sleepers are temporarily held in place on a hardened concrete base by means of braces reaching upward to the ceiling, an additional layer of concrete being poured between the sleepers to anchor them to the base. In other instances, sleeper securing devices are sunk into and embedded in the green concrete base, the sleepers being fastened to said securing devices after the concrete has set. In the first method the cost of extra material and labor is high. In the second method, a number of difficulties arise. If the concrete is too soft, it is distorted by the necessary foot boards upon which the laborers walk, thus resulting in extra labor in the leveling of the wood floor, which at best is unworkmanlike. If the concrete is too hard, it is impossible to apply the securing devices. The relatively short time most practical for the application of said devices is limited, and, often coming out of working hours, occasions considerable inconvenience and added expense in obtaining the requisite labor.

The object of my invention is to provide a simple, inexpensive and efficient anchor for sleepers which may be readily applied to a concrete floor, after it has set sufficiently to withstand the weight of laborers walking thereon, and, during the relatively long period before the concrete becomes substantially hardened.

With the foregoing and other objects in view, which will appear in the following description, the invention resides in the novel combination and arrangement of parts and in the details of construction hereinafter described and claimed.

In the drawings, Fig. 1 is a perspective view of a device embodying my invention; Fig. 2 is a similar view, showing the flanges folded in overlapping relation upon the floor plate; Fig. 3 is a perspective view illustrating the manner in which the device is used and Fig. 4 is a perspective view of an alternate form of my improvement.

Reference being had to the drawings, it will be observed that my improvement is formed from a strip of sheet metal. This strip is scored transversely as at 10 at either side of the center thereof, the medial section defined by said scores comprising a base A and the terminal sections comprising attaching flanges 11. In the form illustrated in Figs. 1, 2 and 3, the medial section is turned upon itself near the ends thereof, those portions 12 of the strip overlapping the end margins of the floor plate 13 of the base A serving to station the roots of the flanges 11 inwardly of the ends of the base and thereby form reinforced ears *b*. Said reinforcing, flange insetting portions 12 have apertures 12^a therein registering with apertures 13^a in the floor plate 13. These registering apertures 12^a and 13^a receive anchoring nails 14 and are located so as to bring the heads 14^a of said nails closely adjacent to the scores 10 at the roots of the flanges 11. Said flanges 11 are adapted to be turned into upright positions to receive a sleeper 15 (Fig. 3), apertures 11^a being formed in said flanges to receive securing nails 16 driven into the sides of the sleeper.

The reinforcing, flange insetting portions 12, as shown in Figs. 1 and 2, are not present in the alternate form illustrated in Fig. 4. The flanges 11 turn upward from the extremities of the floor plate 13 on the scores 10. Apertures *a* near the ends of said plate receive nails 14, said apertures being arranged to bring the heads 14^a of said nails in close proximity to the scores 10, whereby said heads insure the turning of the flanges 11 on the root lines thereof, without the distortion of parts.

In use, my devices are secured to a partially set concrete slab, as at 9, by driving the nails 14^a into the concrete and through the registering apertures 12^a and 13^a in the ears *b*. On account of the usual traffic over a concrete floor between the time of application of the anchoring devices and the time of laying the wood floor, the flanges 11 are preferably left in flattened relation (Fig. 2) until the sleepers are to be laid. At such time, said flanges 11 are readily turned upward, the bending thereof being easily accomplished without distortion of the parts by reason of the scores 10 and the near proximity of the nail heads 14^a to said scores. Sleepers 15, embraced between the flanges 11 of aligned anchoring devices are secured thereto by means of nails 16 driven through the apertures 11^a in said flanges. With the sleepers thus firmly anchored to the concrete floor, floor boards 16 are applied in the usual manner.

Changes in the specific form of my in-

vention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A device of the class described formed from a strip of sheet metal, the medial section thereof comprising a floor plate, the transverse sections adjacent said medial section comprising combined spacing and reinforcing members, the same being turned inwardly upon the margins of said plate, and the terminal sections of said strip comprising attaching flanges, said flanges being scored at their roots to permit of the ready bending thereof from overlapping relation on the floor plate into upright sleeper embracing positions, said medial and adjacent sections being formed with apertures registering to receive anchoring elements and said terminal sections being apertured to receive sleeper securing means.

2. A device of the class described formed from a strip of sheet metal, the medial section thereof comprising a floor plate, the transverse sections adjacent said medial section comprising combined spacing and reinforcing members, the same being turned inwardly upon the margins of said plate, and the terminal sections of said strip comprising holding flanges, said flanges being adapted to be bent from overlapping relation on the floor plate into upright sleeper embracing positions, said medial and adjacent sections being formed with registering apertures and nails adapted to be driven into a base and through the registering apertures for anchoring the device, said apertures being arranged to bring the heads of the nails in close proximity to the root lines of the flanges, whereby the bending of said flanges on said lines is readily accomplished without distortion of parts.

3. A device of the class described formed from a strip of sheet metal scored transversely at either side of the center thereof, the section between the scores comprising a floor plate and the terminal sections comprising attaching flanges said floor plate being apertured at either end thereof near the scores to receive anchoring elements, said flanges being adapted to be bent upon the scores from overlapping relation upon the floor plate into upright positions to receive a sleeper.

4. In a device of the class described, a floor plate, opposed flanges on said plate adapted to be folded in overlapping relation upon the plate to form a compact structure and also adapted to be bent upward from said plate to form spaced sleeper embracing elements, the base portions of said flanges being permanently lapped upon the plate and together with said plate forming reinforced anchoring elements, and means for co-operation with said elements and with a floor to anchor the device to the floor.

5. A device of the class described, comprising a sheet metal strip, the ends of the strip being bent inward upon itself, thence upward therefrom, the medial section of the strip comprising a floor plate, the ends of said plate, together with the inturned sections of the strip comprising reinforced ears of lapping material, said upwardly extending portions comprising attaching flanges, and means cooperating with said ears for anchoring the device to the floor.

6. In a device for anchoring a sleeper to a floor, a strip of sheet metal scored transversely at either side of the center thereof, the section between the scores comprising a floor plate and the terminal sections comprising attaching flanges, said floor plate being apertured at either end thereof near the scores to receive nails adapted to be driven therethrough and into the floor, said apertures being thus arranged to bring the heads of the nails in close proximity to said scores, whereby they are caused to clamp the floor plate to the floor at points near said scores and thereby minimize distortion of parts during the bending of said flanges at the scores.

In testimony whereof, I have signed my name to this specification.

HOLGER WILLIAM RAUN.