Jan. 22, 1929. 1,699,557

R. V. YEAGER

SCREED ANCHORING AND LEVELING DEVICE

Original Filed March 10, 1924

Fig. 4.

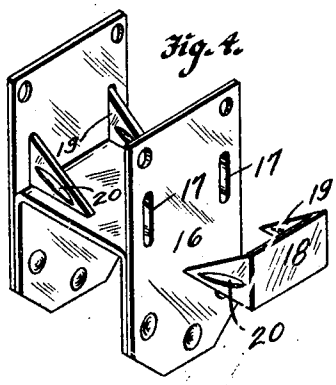
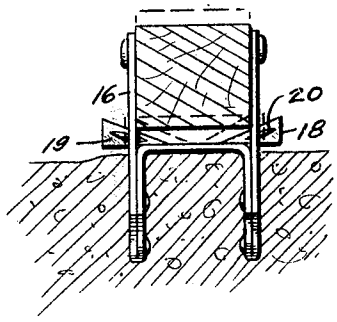


Fig. 5.



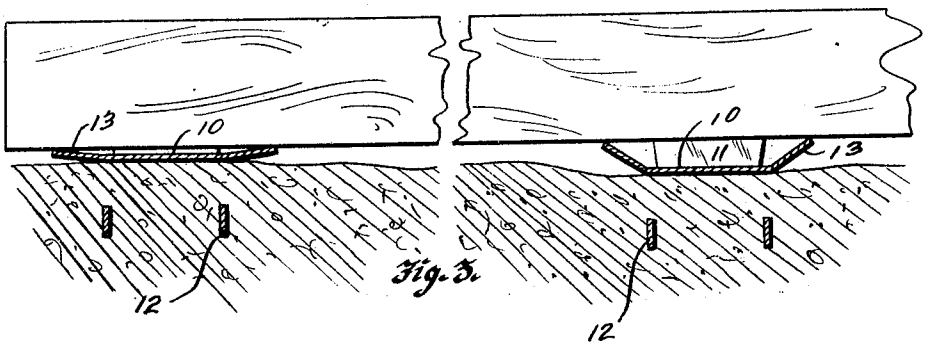


Fig. 3.

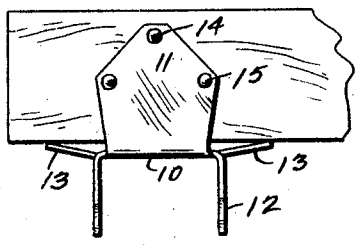


Fig. 2.

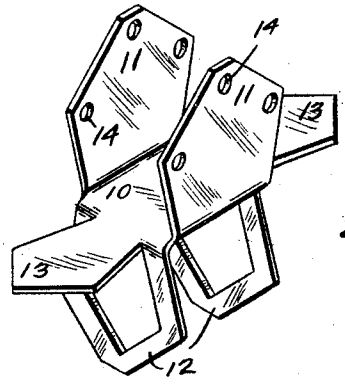


Fig. 1.

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UNITED STATES PATENT OFFICE.

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SCREED ANCHORING AND LEVELING DEVICE.

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In the construction of buildings, in which wooden floors are placed upon concrete bases, it is customary to provide screed anchors which are placed in the concrete base before the concrete has set and hardened, and then before placing the wooden floor thereon, screeds or sleepers are placed upon the concrete base and secured to said anchors. These concrete bases, as ordinarily formed, are not level, and in order to lay the screeds or sleepers so their upper edges will be level to receive the wooden floor, it is customary, before securing the screeds to the anchors, to place wooden wedges or the like between the concrete base and the under surface of the sleepers. The forming of these wooden wedges and the placing of them in position requires considerable time and is, therefore, expensive, as it must be done by skilled workmen. Furthermore, when these wooden wedges have been placed in position, it is customary to drive nails through the screeds into the wedges and hold them in position against shifting about. It is also customary, after the screeds have been leveled and supported by the wedges and nailed to the screed anchors, to fill up the space between the under surface of the screed and the concrete base with concrete.

The object of my invention is to provide a combined screed anchoring and leveling device of simple, durable and inexpensive construction, whereby the process of leveling screeds and connecting them to the anchors may be accomplished in a convenient, facile and economical manner, and whereby the time and expense of making and cutting down wooden wedges and nailing them to the screeds to prevent shifting about may be entirely dispensed with.

My invention consists in the coustruction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Figure 1 shows a perspective view of a screed anchoring and leveling device embodying my invention.

Figure 2 shows a side elevation of same with a portion of a screed mounted thereon.

Figure 3 shows a vertical, central, sectional view through two adjacent screed anchoring and leveling devices mounted in a concrete base, which is shown in section, and supporting a screed.

Figure 4 shows a perspective view of the screed anchoring and leveling device showing a modified form of my invention.

Figure 5 shows an edge view of same mounted in a concrete base and having a screed therein. The dotted lines show the adjusted position of the screed when the wedges are driven into their inner limit of movement.

Referring to the accompanying drawings, it will be noted that the entire device, as illustrated in the preferred form, is formed complete of a single piece of sheet metal, and comprises a body portion 10 with two upwardly extended screed supporting members 11 on opposite sides of the body, and two downwardly extended anchoring members 12 on opposite ends of the body portion. A portion of the material of which the anchoring members 12 are formed is cut out and normally extended parallel with the body portion and forms the two leveling members 13. Suitable openings 14 are formed in the screed engaging members to receive nails 15.

In practical use with the preferred form of my invention, the anchoring members of the screeds are placed in the concrete base before the concrete has set and hardened, the leveling members 13 being above the base, and preferably lying in a horizontal position. After the base has set and hardened, the wooden screeds are placed in position resting between the screed engaging members 11. Before the screeds are placed in this position, the leveling members 13 are inclined upwardly and outwardly, as shown at the right in Figure 3. Then when a screed is brought to the desired level by pressing downwardly upon it, and thus bending the leveling members, and when the proper level is reached, the screed engaging members 11 are nailed to the screed. Then the operator proceeds to press the screed downwardly at various points throughout its length to the desired level, and nail the screed engaging members to it, at as many points as may be necessary. After the screeds are thus leveled and supported, then the operator places concrete under the screeds and around the screed ancors to firmly support the screed at its various positions of elevation above the base throughout its entire length.

In the modified form shown in Figures 4 and 5, I have shown a screed anchor made of sheet metal and comprising a horizontal body portion, downwardly extended anchor mem-

bers and upwardly extended screed engaging members indicated generally by the reference numeral 16. Formed in each of the upright screed engaging members are two vertical slots 17, the lower edges of which are substantially flush with the top of the central horizontal member. The screed leveling members are each formed complete of a single piece of sheet metal comprising a central portion 18 and two wedge shaped end members 19 at right angles to the body portion 18, and these wedge shaped members are each preferably provided with a raised, outwardly extending rib 20 to yieldingly engage the sides of the slots 17 and hold the leveling member in any position of its movement within the slots.

In use with this form of the invention, the screeds are placed in the anchors in the manner before described, and then the leveling wedge devices are inserted in the slots and driven in until they engage the under surface of the screed at its proper point of elevation, and then the screed engaging members are nailed to the screed.

In Figure 5 I have shown these screed leveling wedges in solid lines driven into proper position relative to the screed, and by dotted lines I have shown the screed separated a greater distance from the base and their wedges driven in farther to engage its under surface. These wedges, by being connected to the anchors and by having yielding or frictional contact with the sides of the slots in the anchors, will not become displaced after they have once been driven into position, but will hold the screed at the proper elevation until it is firmly attached to all of the anchors, after which the space between the screed and the base is filled with concrete.

I claim as my invention:

1. A screed anchoring and leveling device formed from a single piece of sheet metal having an anchoring member designed to be secured to a base, a screed anchoring member, and means mounted on said base anchoring member for adjusting the level of a screed before being secured to said anchor.

2. A screed anchoring and leveling device formed of a single piece of sheet metal, having a downwardly extending member designed to be mounted in a concrete floor, and an upwardly extending member designed to be secured to a screed, said device being provided with bendable means for adjusting the level of a screed before it is permanently secured in position to said upwardly extending member.

3. A screed anchoring and leveling device formed of a single piece of sheet metal having a horizontally extending body portion and a pair of downwardly extending members designed to enter a plastic concrete base, said body portion being provided with a pair of upwardly extending screed anchoring members, and also provided with a pair of laterally extending bendable members adapted to engage the under surface of the screed and to temporarily support it in position relative to said anchors before being secured thereto.

4. A screed anchoring and leveling device formed of a single piece of sheet metal having a horizontally extending body portion and a pair of downwardly extending members designed to enter a plastic concrete base, said body portion being provided with a pair of upwardly extending screed anchoring members, and also provided with a pair of laterally extending bendable members adapted to engage the under surface of the screed and to temporarily support it in position relative to said anchors before being secured thereto, and means for rigidly securing said screed to said screed anchoring members.

5. A screed anchoring and leveling device comprising an anchoring member designed to be secured to a base, a screed engaging member designed to be secured to a screed, and an adjustable leveling member, said screed engaging member and said leveling member being capable of movement to a position flat against the base to which the anchoring member is secured.

6. A screed anchoring and leveling device formed of a single piece of sheet metal, said body portion being provided with a pair of downwardly extending members designed to enter a plastic concrete base and to be supported thereby, said body portion being provided with upwardlly extending screed anchoring members designed to receive a screed between them, said body portion also being provided with laterally extending members for engaging the under surface of the screed and for temporarily supporting and leveling the same, the last said members being formed from the said downwardly extending members.

7. A screed anchoring and leveling device comprising a body portion, a downwardly extending member designed to enter a plastic concrete base and to be supported thereby, said body portion also being provided with an upwardly extending member for engaging and supporting a screed, said body portion also being provided with upwardly and outwardly extending yieldable members designed to engage the under surface of said screed and to normally support the said screed in an elevated position relative to said body portion, said members being of such yieldability that the screed may be adjusted relative to said screed support by applying a slight downward pressure to said screeds while resting on said yieldable members, and means for rigidly securing the screed relative to said screed supporting member.

8. A screed holder or clip embodying a body portion, bendable means to engage a screed, and transversely disposed bendable means to provide for upward pressure against the under side of the screed for raising of the screed to level the same.

9. A screed holder or clip comprising a body portion with means to depend within the concrete, means to extend upward to embrace a screed, and transversely disposed means to engage the under side of the screed to elevate the same for leveling purposes.

10. A screed holder or clip comprising a body portion with means to depend within the concrete, means to extend upward to embrace a screed, and means to engage the screed to elevate the same for leveling purposes, the latter extended transversely of the length of the holder.

Des Moines, Iowa, March 7, 1924.

ROY V. YEAGER.