

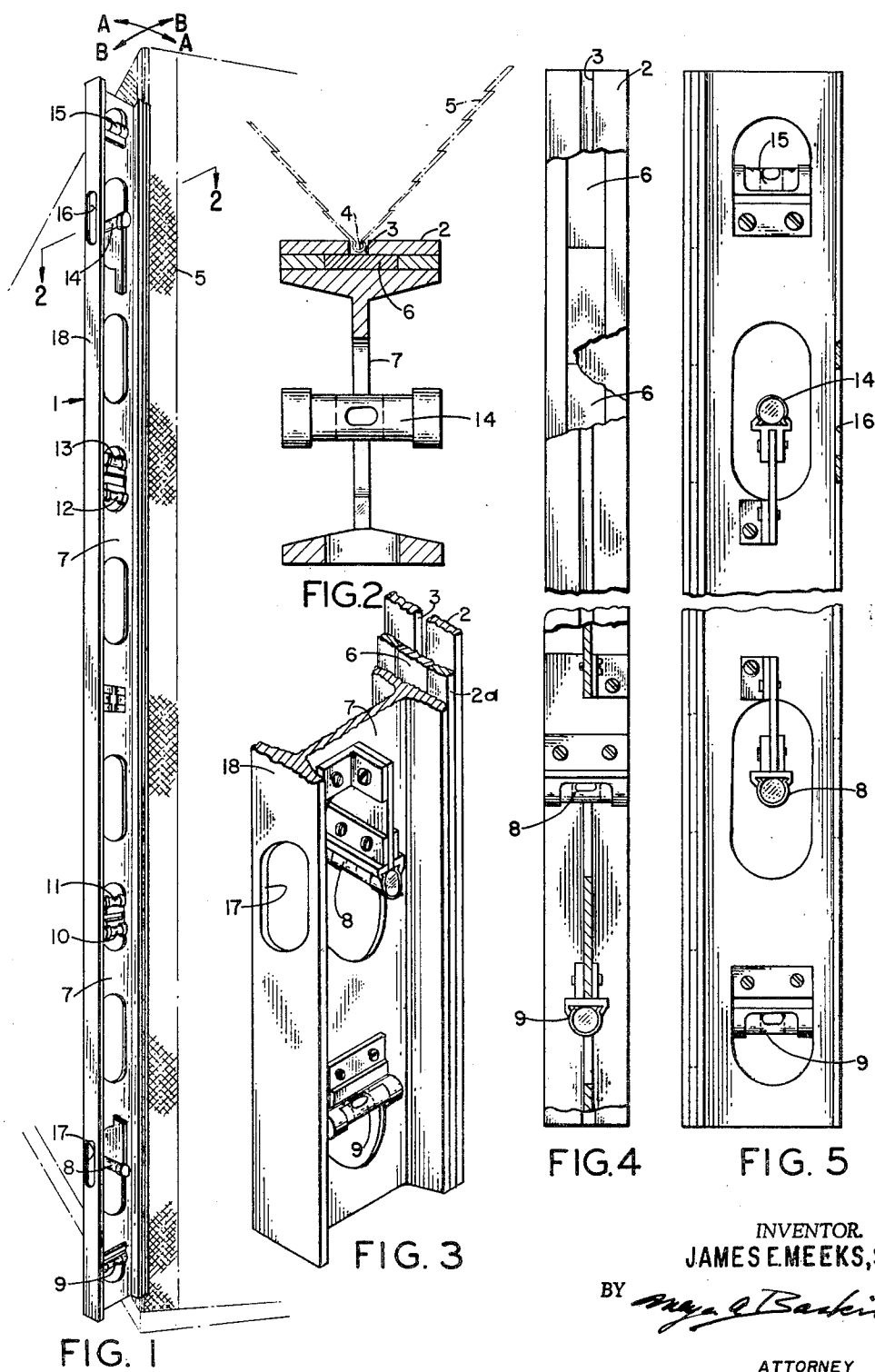
April 27, 1965

J. E. MEEKS, SR
GALVANIZED BEAD SETTER

3,180,036

Filed July 26, 1962

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

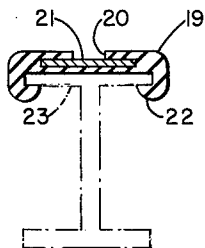


FIG. 9

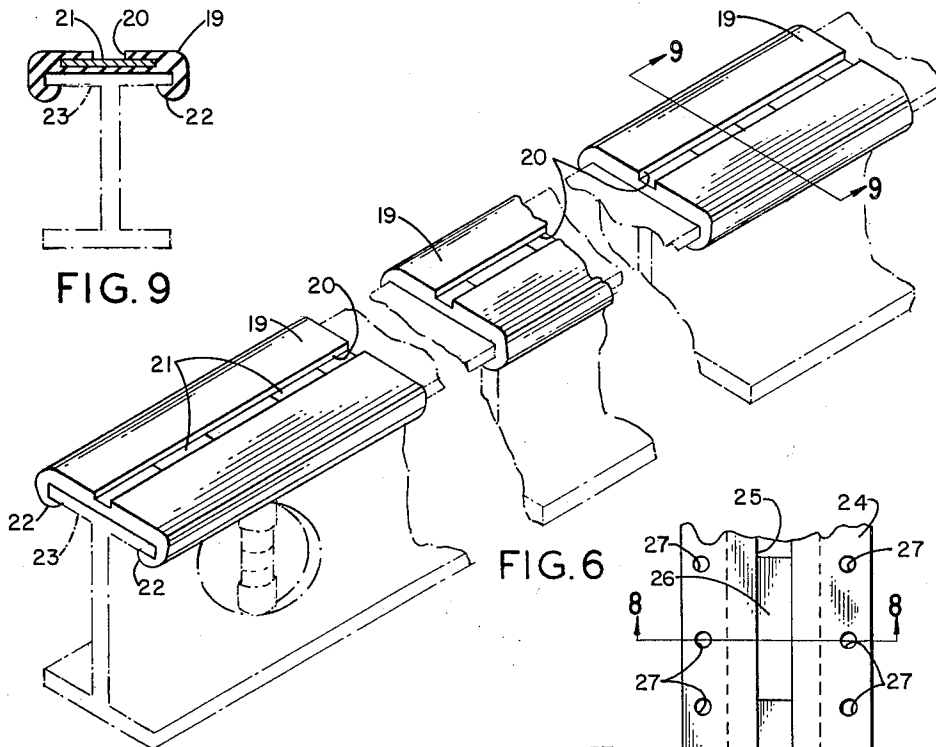


FIG. 6

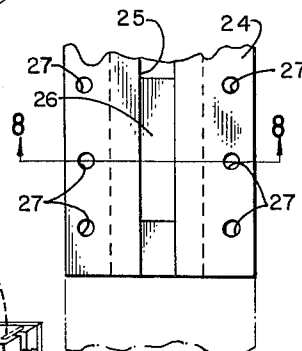


FIG. 7

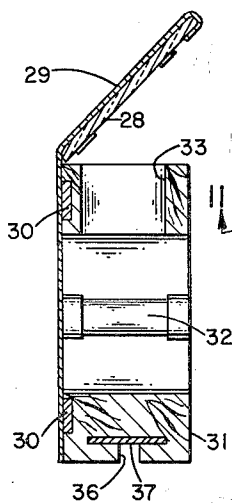


FIG. 11

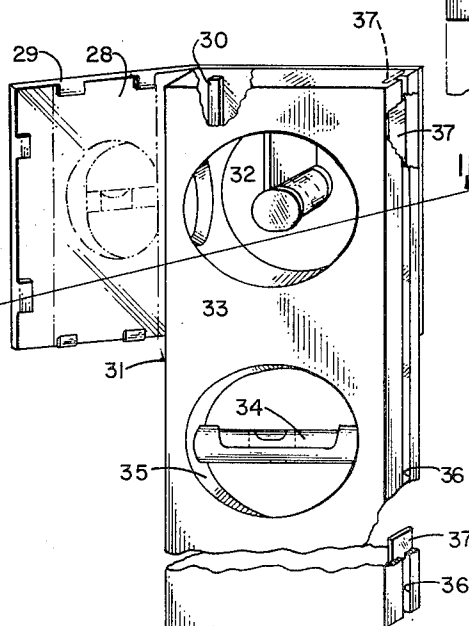


FIG. 10

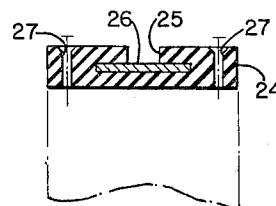


FIG. 8

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3,180,036

GALVANIZED BEAD SETTER

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Filed July 26, 1962, Ser. No. 212,588

4 Claims. (Cl. 33-207)

This invention relates to an instrument for use as a plumb for applying corner pieces to walls wherein a galvanized iron metal bead is used. The use of these beads is standard procedure in plastering in order to obtain a strong, straight corner.

It is an important object of the present invention to provide a simple means for aligning a corner bead so that it is plumb in all directions. That is to say, that the bead will be vertical no matter which vertical plane of reference is taken.

An additional object of the present invention is to provide an instrument which will accomplish the vertical alignment of corner beads with one setting of the instrument, and in a simple and expeditious manner.

An additional object of the present invention is to provide an instrument which can also be used as a regular level as well as for the purpose described.

An additional object of the present invention is to provide an attachment or a series of attachments which can be easily added to a standard level, either of the square cross section wood type, or of the I beam cross section of the aluminum metal type, said attachments easily converting the standard level to one which can be used for the purposes of my invention.

Additional objects and advantages of the present invention will be apparent from the following description illustrating the perfected form of my invention.

FIGURE 1 is an overall elevational view of my invention in position for use.

FIGURE 2 is a cross sectional view of the instrument of my invention, and a portion of the corner bead taken along line 2-2 of FIGURE 1.

FIGURE 3 is a partially cut-away section of my instrument showing details of construction.

FIGURE 4 is a vertical elevational view in partial cross section, looking at it from the narrower side.

FIGURE 5 is an elevational view in partial cross section of the instrument of my invention looking at it from the broader side.

FIGURE 6 is a perspective view partially broken in sections showing the attachments of my invention in place on a standard I beam level.

FIGURE 7 is a detail plan view of a portion of an attachment as applied to a standard square wood level.

FIGURE 8 is a sectional view taken along line 8-8 of FIGURE 7.

FIGURE 9 is a sectional view taken along lines 9-9 of FIGURE 6.

FIGURE 10 is a perspective detail view showing another type of mirror attachment, for use with my invention.

FIGURE 11 is a sectional view taken along lines 11-11 of FIGURE 10.

The instrument of my invention consists substantially of a level 1, preferably made of aluminum or wood or similar light material, having one face 2 formed in the shape of long narrow flat strips. An elongated rectangular groove 3 is formed in face 2, extending throughout its length and is adapted to fit snugly over the nose 4 of a corner bead 5.

At the bottom of groove 3 there is placed a row of magnets 6 which are spaced along the length of the groove 3. A pair of strips 2a are disposed intermediately between and are suitably fixed to the adjoining flat surface

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of a web parallel 7 and the face 2 and extend the length of face 2 of level 1.

At spaced intervals along the web 7 of the level 1, there are inserted various level bubbles 8, 9, 10, 11, 12, 13, 14 and 15. Some of the bubbles, such as 8 and 14, are positioned at right angles to the web 7. The other bubbles 9, 10, 11, 12, 13 and 15 are positioned parallel to the web 7.

Apertures 16 and 17 are provided opposite levels 14 and 8 respectively so that levels 14 and 8 can be observed from the proper direction, that is, from a position at right angles to levels 14 and 8. Apertures 16 and 17 are in the face 18, which is opposite to the face 2 containing the magnets 6 and the groove 3.

When in use, the level is positioned against the nose 4 of corner bead 5, as shown in FIGURE 1. Since the nose 4 fits snugly into groove 3, it will be contacted by magnets 6 which are of sufficient strength and numbers to hold the entire level 1 in position. The groove 3 keeps the level 1 aligned with the bead nose 4 so it will not slip out of position.

Since, as is often the case, one man is on the job, he can place the level 1 into position, shown in FIGURE 1, and it will be held in position by magnets 6 and groove 3. He can then see that the bead 5 is aligned vertically in plane A-A of FIGURE 1 by observing level bubbles 14 and 8 through apertures 16 and 17 respectively. He can then observe that the bead 5 is positioned properly in a vertical plane B-B of FIGURE 1 by observing level bubbles 15, 13, 11 and 9 from either side of level 1. In order to allow the level to be used with either end up, additional level bubbles 12 and 10 may be provided. Thus, if the level 1 were positioned upside down from the position shown in FIGURE 1, then bubbles 12 and 10 would be used to determine plumb in vertical plane B-B.

If the bead 5 and the bead nose 4 are out of alignment, either in vertical plane A-A or in vertical plane B-B, it can be adjusted and again tried.

All of this can be done accurately, simply and quickly with a one-man operation. If a conventional level which does not have magnets 6 or groove 3 were used, then two men would be needed to properly check the alignment of the bead 5, that is, one to hold the level in place and the other to observe it from each direction. Even then, it would not be a perfect check since a conventional level having a flat edge could easily slip out of alignment with the bead nose 4 so that even though the level showed it to be plumb, it would not necessarily be so in all vertical planes.

An important variation of my invention is shown in FIGURES 6, 7, 8 and 9, wherein an attachment made of semi-hard rubber or stiff plastic having imbedded therein magnets and which can be attached to standard levels. For example in FIGURE 6, attachment pieces 19 are shown having a groove 20 in the bottom of which are inserted magnets 21. The attachments 19 have, on their underside, inwardly turned lips 22, which are shaped so as to firmly grasp the edge 23 of a standard I beam type of level, which are usually made of aluminum, magnesium or some other light metal. These attachments 19 could be made with the magnets already imbedded and molded into the hard rubber body of the attachment in the bottom of groove 20. Or, alternatively, the attachment 19 could be molded from hard rubber or plastic having sufficient elasticity so that the space to receive the magnets is molded in, and after the attachment 19 is finished, the magnets are forced into place.

In any case, the attachments 19 must be made of a semi-hard rubber or plastic of sufficient strength and stiffness so that the inwardly turned lips 22 will grasp the edge of the level 23, and hold the entire weight of the level when it is positioned against the nose of the corner bead.

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For a long level, such as a 6-foot level, several such attachments 19 would be used. They could be placed in position by having the lips 22 forced over the edges of the level, or by being slid over the end of the level. If, on the other hand, a shorter level, such as a 3-foot level were being used for placing corner beads on a window opening, then only two attachments 19 would be necessary. The number of such attachments could readily be judged by the operator himself.

Obviously, these attachments 19 would be quite inexpensive to make, and could be sold separately or in conjunction with the levels, so that an ordinary level could be adapted for use in setting a plumb corner bead, either on a wall corner or a door corner or a window corner.

Another variation of my invention is shown in FIGURES 7 and 8. This is an attachment 24, also made of hard rubber or stiff plastic, and being molded with a groove 25 of the proper size to take the nose of a corner bead, and having molded into the bottom of said groove 25 magnet 26. This attachment 24 would be particularly adapted for use with standard square-edged wood levels. In order to attach it to the wood level, holes 27 would be molded into the attachment 24 so that small nails or brads could be driven through the attachment 24 into the wood level to hold it firmly in position.

Another improvement for my invention is shown in FIGURES 10 and 11. This is a mirror 28 having a supporting piece of galvanized iron 29 bent at a 45° angle. Magnets 30 built into the broad side of the level 31 serve to hold supporting iron 29 and mirror 28 in position so that the operator can see the right angle bubble 32 through hole 33 at the same time that he is observing the other bubble 34 through hole 35. Level 31 has a groove 36 and magnets 37 which serve the same purpose of holding level 31 on a corner bead as groove 3 and magnets 6 in FIGURE 1. With mirror 28, the operator can check the plumb of a corner bead in two vertical planes at one time.

Any one of the attachments 19 and 24 could be used for substantially the same purpose and manufactured at approximately the same inexpensive price. These separate attachments made of semi-hard rubber or stiff plastic of approximately the consistency of rubber shoe heels, would be of great benefit to the trade in saving of time and improvement of workmanship. When the attachments 19 and 24 are attached to standard conventional levels, then the level works in exactly the same manner as described above for a level having the groove 3 and magnet 6, but compensation would have to be made for absence of a right angle bubble by using another smaller level or alteration of the standard level.

My level could also be used in leveling a bead in horizontal position above or below a wall opening, using the standard horizontal level bubbles.

An amateur using the device of my invention, can do a precision job of setting corner beads with a few simple instructions. This was previously practically impossible even by journeymen lathers without the use of the device of my invention.

In using my invention, you first secure the corner bead to the arris by nailing it on both sides just above the base of the corner so that the nose of the bead is at the apex of the corner. This gives you a starting point. You then engage the nose of the bead in the groove on the side of the level of my invention by simply contacting the groove of the level with the bead. The galvanized iron bead will be promptly pulled into the groove by the action of the magnets. The groove is just the proper width for the standard nose of the bead to enter and be held firmly in place. The groove serves the important purpose of holding the bead perfectly straight with respect to the level in all planes. The magnets hold the level and the beads together.

Since the level is now holding firmly on to the bead, the bead is adjusted to the arris by pushing in on the

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level, and pushing it to either side to get it near the desired plumb location. At about eye level, a nail is driven partially in on an angle in the flange of the bead on both sides. Now the level and the bead are temporarily secured to the arris so that it will not fall off. The lather can now check the level of the bubbles without having to hold the level itself. This must be done in both planes A—A and B—B, as shown in FIGURE 1. The lather can then adjust the bead by moving the partially driven nails at eye level in at an angle with hammer or lathing hatchet until the bead is exactly plumb in both planes simultaneously. The flange of the bead on both sides can now be nailed securely for its entire length. Nails should be driven straight in where the flange touches the lathe on each side so as not to pull the level out of plumb. After the bead is securely nailed, the level can be pulled off against the pressure of the magnets.

Other forms and advantages of my invention will be apparent to those skilled in the art.

I claim:

1. An instrument for aligning metallic corner beads in building room walls during the construction thereof, comprising a level having two elongated parallel opposing relatively narrow flat faces joined together by a relatively wider centrally disposed web, said level having a plurality of level bubbles disposed along its length, some of said bubbles being disposed in a plane parallel to the elongated faces and connecting web of the level, an observation aperture in one of said parallel faces opposite the level bubbles which are at right angles to the connecting web, the opposite parallel face having an elongated groove formed therein and extending the entire length of said face, and a plurality of separate magnets positioned and fixed in the level immediately below the bottom of said groove, wherein the said elongated groove formed in one of the faces of the level is adapted to receive the nose of a metallic corner bead throughout its length and wherein the plurality of separate magnets are maintained in position between the grooved face of the level and the adjacent flat face of said level by a pair of intermediate strips extending parallel to the level throughout its length.

2. An instrument for aligning metallic corner beads in building room walls during the construction thereof comprising a level having two elongated parallel opposing relatively narrow flat faces joined together by a relatively wider centrally disposed web, said level having level bubbles positioned in two different planes, one of said planes being parallel to the web of said level, and one of said planes being at right angle to the web of said level, said opposing parallel faces being at right angles to the web of said level, flexible snap on elongated attachments adapted to be detachably fixed to one of said faces of the level, said elongated attachments having formed therein an elongated longitudinally extending groove adapted to receive the nose of a standard corner bead, a multiplicity of magnets arranged along the bottom of said groove, and inturned flexible clamping members formed along the outer edges of said attachments adapted to maintain them in exact parallel alignment with the face to which they are applied.

3. An instrument for aligning metallic corner beads in building room walls during the construction thereof comprising a level having two elongated parallel opposing relatively narrow flat faces joined together by a relatively wider centrally disposed web, said level having level bubbles positioned in two different planes, one of said planes being parallel to the web of said level, and one of said planes being at right angle to the web of said level, said opposing parallel faces being at right angles to the web of said level, elongated attachments adapted to be fastened to one of said elongated parallel faces of said level, said elongated attachments having formed therein an elongated longitudinally extending groove adapted to receive the nose of a standard corner bead, a multiplicity of magnets arranged along the bottom of said groove,

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each said elongated attachment having a flat surface opposite to the surface containing said groove.

4. An instrument for aligning metallic beads in building room walls during construction thereof, as described in claim 3, in which said elongated attachments have formed therein holes adapted to receive small nails for the purpose of attaching said elongated attachments to one of said parallel faces of said level.

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