July 22, 1941. E. E. HALL 2,249,824

PIPE SLEEVE HOLDER

Original Filed Aug. 21, 1936

Fig. 1

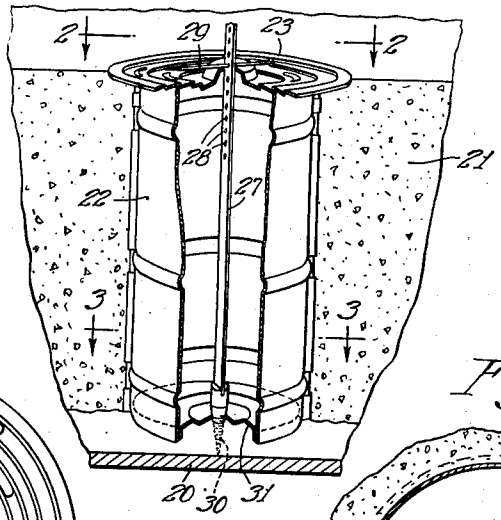


Fig. 2

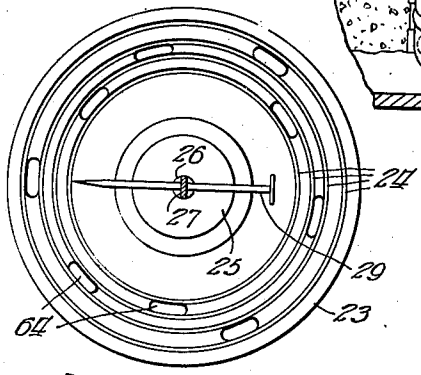


Fig. 3

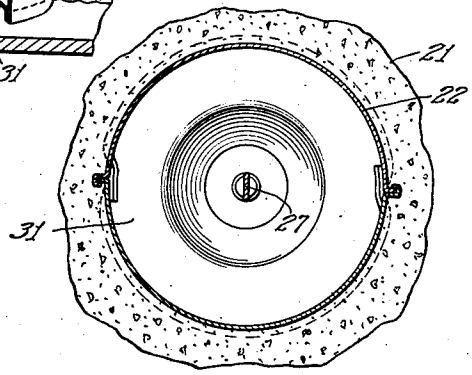


Fig. 5

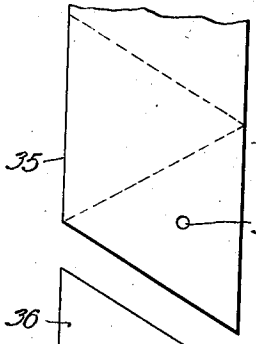


Fig. 6

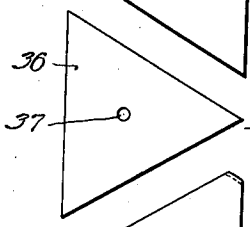


Fig. 7

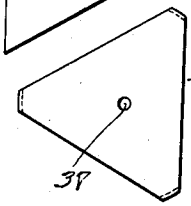


Fig. 4

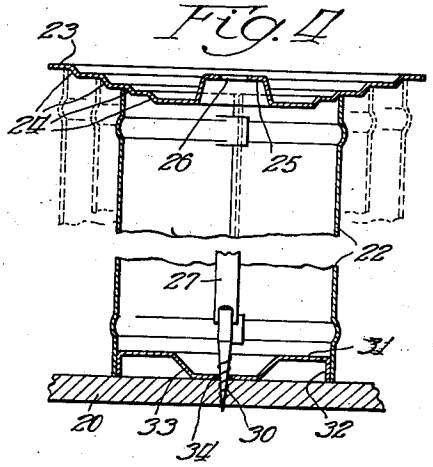
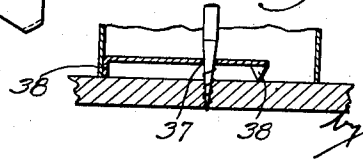


Fig. 8



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Patented July 22, 1941 2,249,824

UNITED STATES PATENT OFFICE

2,249,824

PIPE SLEEVE HOLDER

Eric E. Hall, Chicago, Ill.

Substitute for abandoned application Serial No. 97,296, August 21, 1936. This application May 29, 1937, Serial No. 145,525

1 Claim. (Cl. 25—128)

My invention is concerned with a novel holding mechanism for securing the pipe sleeves which are used in concrete floors and ceilings in place while the concrete is being poured and is setting, and the present application is a substitute for my prior application No. 97,296, filed August 21, 1936, which accidentally became abandoned by failure to respond to the action thereon within six months.

To illustrate my invention, I annex hereto a sheet of drawings, in which the same reference characters are used to designate identical parts in all the figures, of which

Fig. 1 is a perspective view of a pipe sleeve held in place by the improved holder and after the concrete has been poured, a portion of the pipe sleeve being broken away to show the position of the holding mechanism;

Fig. 2 is a top plan view of the same as seen from the line 2—2 of Fig. 1;

Fig. 3 is a view in cross section on the line 3—3 of Fig. 1;

Fig. 4 is a vertical section, with the central part broken away, of the structure shown in Fig. 1, but on a larger scale;

Fig. 5 is a plan view showing how a preferred form of the bottom disc element is manufactured;

Fig. 6 shows that preferred form after it has been severed from the sheet metal strip;

Fig. 7 shows the same as finished, and

Fig. 8 shows the same section in use.

Referring particularly to Figs. 1 to 4 of the drawing, 20 represents the wooden bottom of a form on which the concrete 21 has been poured, and the pipe sleeve 22, which may take any desired form, is held in place by the top or cover disc 23, which preferably takes the shape best shown in Figs. 2 and 4, where it will be seen to consist of a thin sheet metal disc having the annular off-sets 24, so that it will fit readily into the top of the different sized sleeves, as indicated in Fig. 4. The central portion 25 is elevated and provided with the aperture 26 through which passes the bar 27 of the holder, which bar has numerous apertures 28 therein, through which the holding nail 29 can be introduced to hold the disc 23 in place, whatever may be the height of the sleeve. The bottom of the bar 27 has secured thereon the wood screw 30, which is screwed into the form 20 at whatever point is selected as the center of the sleeve, and I use in connection therewith the bottom member 31, which is of the proper diameter to fit snugly in the bottom of the sleeve 22 and insure its being centered exactly at the point located. This member 31 has the downwardly projecting annular flange 32 at its periphery, and preferably has also the depressed portion 33 provided with the necessary aperture 34 through which the screw 30 passes.

The operation of the apparatus as so far described will be readily understood, as all that is necessary is to mark the central point on the form 20 and turn the screw 30 into place through the aperture 34 in the member 31, after which the sleeve is put in place and the cover 23 applied, and the nail 29 put through the necessary aperture 28, to hold the parts assembled while the concrete 21 is being poured. After the concrete has set, the nail 29 is removed, the cover disc 23 taken off, the screw 30 unscrewed, and when the form 20 is taken off, the bottom member 31 can then be removed, leaving the sleeve in place.

Where it is not desired to use the bottom member 31, I utilize the top disc, shown in Fig. 2, accurately to center the pipe sleeve in the following manner: The center where the screw 30 is to enter the form 20 is marked, and the size of the pipe is fitted to the top plate 23, which has the series of holes 64 in each of the flat rings between the vertical off-sets 24. The top cover is then centered over the chosen spot and may be held in place by the screw 30, or otherwise, and a pencil inserted in one of the holes 64 in the flat surface just outside of the offset that fits in the sleeve, and the cover rotated through an entire circle, whereby the pencil will mark a complete circle in which the bottom of the sleeve can be quite accurately fitted. Or if it is not feasible to rotate the cover, the pencil marks may be placed in each of the three or more holes 64 in that particular ring, and the sleeve can then be centered on these marks.

This application is, so far as the generic claim and the specific device heretofore described are concerned, an enforced division of my application No. 617,555 filed June 16, 1932, upon which Letters Patent No. 2,053,555 was issued Sept. 8, 1936, Figs. 1 to 4 of the present application being the same as original Figs. 1, 2, 3, 5 and 6 of the aforesaid application No. 617,555.

In Figs. 5 to 8, I have illustrated a preferred construction of the bottom member, which is just as efficient, but which can be constructed more cheaply than the form shown in Figs. 3 and 4, a desideratum in view of the fact that they are used in large quantities and are sometimes used only once.

To construct them as shown in Figs. 3 and 4, they must be formed from sheet metal strips hav-

ing a width of their diameter plus twice the depth of the flange **32**. The width of the strip **35** shown in Fig. 5 is less than the diameter of the disc **31**, and is sheared off into equilateral triangles **36** as shown in Fig. 6, and at the same stroke that each is sheared off, the hole **37** is punched in the following one. The triangle **36** is then put in a press that turns down the angles for one eighth of an inch to produce the supporting points **38**, which in use are the equivalent of the flange **32**. Thus it will be seen that a very considerable amount of material is saved by making the bottom member of this design.

While I have herein described the novel method of forming the specific shape of the lower member shown in Figs. 7 and 8, I do not herein claim the method, as I have claimed it in my divisional application, Serial No. 235,370, filed October 17, 1938.

While I have shown and described my invention as embodied in the form which I at present consider best adapted to carry out its purposes, it will be understood that it is capable of modification, and that I do not desire to be limited in the interpretation of the following claim except as may be necessitated by the state of the priority.

What I claim as new and desire to secure by Letters Patent of the United States is:

In a pipe-sleeve holder, a thin disc having a central aperture and pressed to form concentric annular offsets adapted to fit in the tops of different sized sleeves, said disc having apertures in the flat annular spaces between the vertical offsets for the purpose described.

ERIC E. HALL.