E. E. HALL.

PIPE SLEEVE HOLDER.

APPLICATION FILED MAY 5, 1921.

1,434,382. Patented Nov. 7, 1922.

Fig. 1

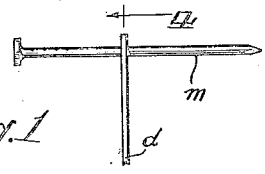
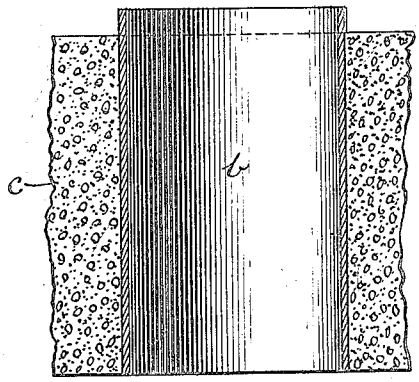


Fig. 2



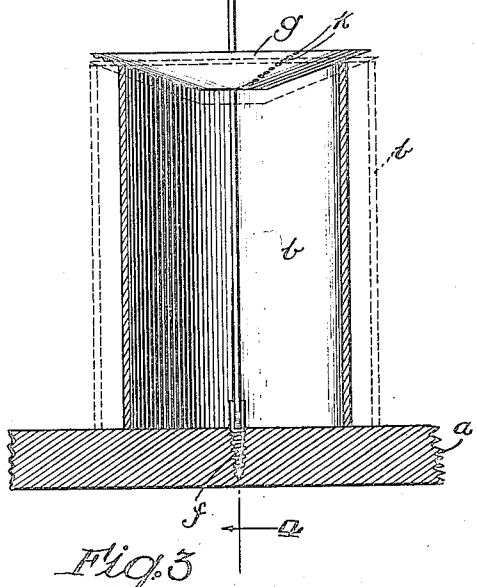


Fig. 3

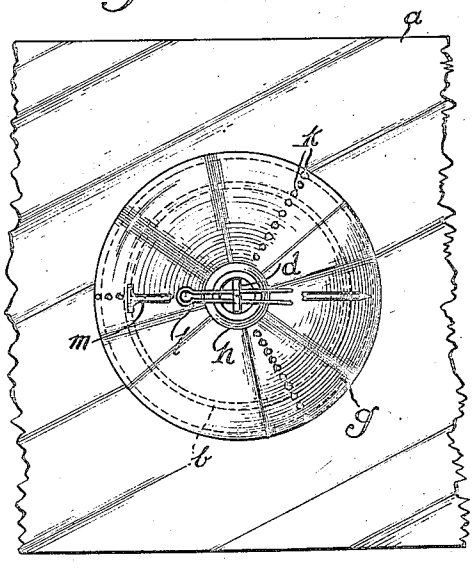
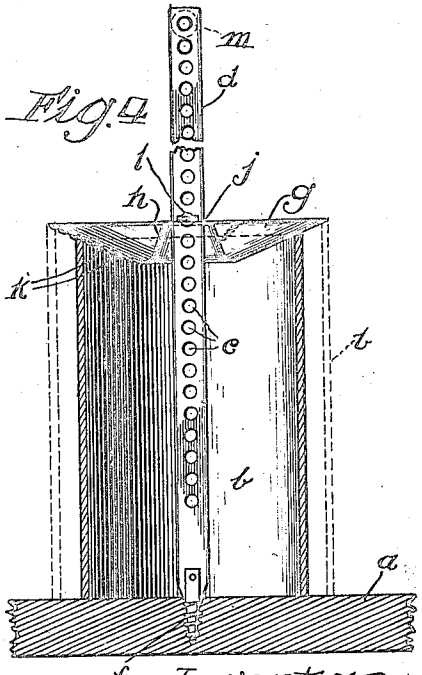


Fig. 4



Inventor:
Eric E. Hall
By John Howard Mustaphis Atty

Patented Nov. 7, 1922. 1,434,382

UNITED STATES PATENT OFFICE.

ERIC E. HALL, OF CHICAGO, ILLINOIS.

PIPE-SLEEVE HOLDER.

Application filed May 5, 1921. Serial No. 467,070.

To all whom it may concern:

Be it known that I, ERIC E. HALL, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pipe-Sleeve Holders, of which the following is a full, clear, and exact specification.

My invention is concerned with certain new and useful apparatus which I call pipe-sleeve holders, and which are designed primarily for use to hold the sleeves, through which pipes are to be passed, in place on the form during the pouring of concrete floors, and is designed to produce a simple and efficient device that can be cheaply manufactured and which can be used for a wide variation in both the diameter and length of the sleeves.

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 central vertical section through the sleeve held in place on the form by my apparatus;

Fig. 2 is a similar view of the sleeve after the concrete has been poured and set and the form and holder removed;

Fig. 3 is a top plan view of the apparatus seen in Fig. 1; and

Fig. 4 is a vertical section on the line 4—4 of Fig. 1.

In the pouring of concrete floors, a suitable form *a* is employed, of which I have only indicated the cross section of the bottom of a portion thereof. Upon this form at such places as it is expected to pass pipes through the floor when the building is completed, are placed the sleeves *b*, which may vary widely in diameter for the different sized pipes they are used to accommodate, as well as in length for the different thicknesses of the floors *c*. To accommodate these variations, and for use with the wooden forms illustrated, I provide a metal bar *d* having numerous preferably regularly spaced holes *e* therethrough and having a rather long wood screw *f* either rigidly secured to or formed on the bottom of the bar.

The part contacting with the sleeve preferably takes the form of a sheet metal disk *g*, which is preferably concave, as shown, and provided with the centrally located hub portion *h*, which has a circular aperture *j* therein of a diameter slightly greater than the width of the bar *d*. Automatically to hold this disk centered in the top of the sleeve, I preferably provide plural series of lugs *k* arranged radially on the under surface thereof, and which may be placed therein when the disk is formed in a drawing press.

The operation of the apparatus is as follows: When the location of the sleeve *b* has been determined, the bar *d* is placed with the wood screw at the center of the location, and it is turned enough so that the wood screw enters the form *a* far enough to hold the bar *d* upright. The sleeve *b* is then put in place, and the disk *g* is dropped over the bar until it rests on the top of the sleeve, after which some suitable holding means, such as the cotter pin *l* is thrust through the hole *e* directly above the aperture *j*. The bar *d* is now turned, preferably by inserting some convenient member, such as the wire nail *m* shown, through one of the holes *e* until the penetration of the wood screw brings the cotter pin *l* down tightly on the top of the hub *h*, when it will be apparent that the sleeve is rigidly secured in place.

The length of the bar *d* with the holes *e* extending throughout its length takes care of any variation in the length of the sleeves, and the excess diameter of the preferably tapered disk *g* takes care of the variation in the diameters of the sleeves, as indicated in dotted lines in Fig. 1. It will be understood of course that I might use some skeleton construction instead of the disk *g*, but I prefer to use the disk as it covers the top of the sleeve and prevents any concrete getting on the inside thereof and obviates the necessity of dislodging it after it has hardened.

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 modifications, and that I do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the prior art.

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

1. In a sleeve holder for use on forms, the combination with a central member adapted to extend through the sleeve and provided with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically thereon so as to engage the top of the sleeve irrespective of its exact

length and hold its bottom in contact with the form, and means for securing it in any desired adjustment.

2. In a sleeve holder for use on forms, the combination with a central member adapted to extend through the sleeve and provided with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically thereon and shaped so that it will automatically center itself on the top of sleeves of different diameters as it is forced down on them, and means for securing it in any desired adjustment.

3. In a sleeve holder for use on forms, the combination with a central member adapted to extend through a sleeve with which it is employed and provided at its lower end with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically on the upper portion thereof and closing the top of the sleeve to which it is applied, and means for securing it in any desired adjustment.

4. In a sleeve holder for use on forms, the combination with a central member adapted to extend through the sleeve and provided with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically thereon and consisting of a disk having its under face of the general shape of an inverted cone, and means for securing said disk in any desired adjustment.

5. In a sleeve holder for use on forms, the combination with a central member adapted to extend through the sleeve and provided with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically thereon and consisting of a disk having a plurality of radially extending series of projections on its under side for the purpose described, and means for securing said disk in any desired adjustment.

6. In a sleeve holder for use on forms, the combination with a central member adapted to extend through the sleeve and provided with means to secure it temporarily to a form, of a sleeve engaging member adjustable vertically thereon, having means for engaging and automatically centering the tops of sleeves of different diameters, and means carried by the central member for holding the sleeve engaging member in engagement with the top of the sleeves to which the sleeve holder is applied.

7. In a pipe-sleeve holder, the combination with a bar having a wood screw on its lower end, of a disk through which the bar passes adjustable vertically thereon to engage and close the tops of sleeves of different diameters, and means carried by the bar for holding the disk in engagement with the top of the sleeves.

8. In a pipe-sleeve holder the combination with a bar having holes therethrough at frequent intervals and a wood screw on its lower end, of a disk having a centrally located aperture through which the bar passes adjustable vertically thereon to engage and close the tops of sleeves of different diameters, and a pin passed through one of the holes for holding the disk in engagement with the top of the sleeves.

9. In a pipe-sleeve holder the combination with a bar having holes therethrough at frequent intervals and a wood screw on its lower end, of a disk having a centrally located aperture in a hub portion through which the bar passes adjustable vertically thereon to engage and close the tops of sleeves of different diameters, and a pin passed through one of the holes for holding the disk in engagement with the top of the sleeves.

In witness whereof I have hereunto set my hand and affixed my seal, this 30th day of April, A. D. 1921.

ERIC E. HALL. [L. S.]

Witness:

JOHN HOWARD MCELROY.