July 29, 1924. 1,503,148

H. W. BERNSTROM

COMBINED REENFORCE AND LEVELER

Filed May 3, 1922

Fig. 1.

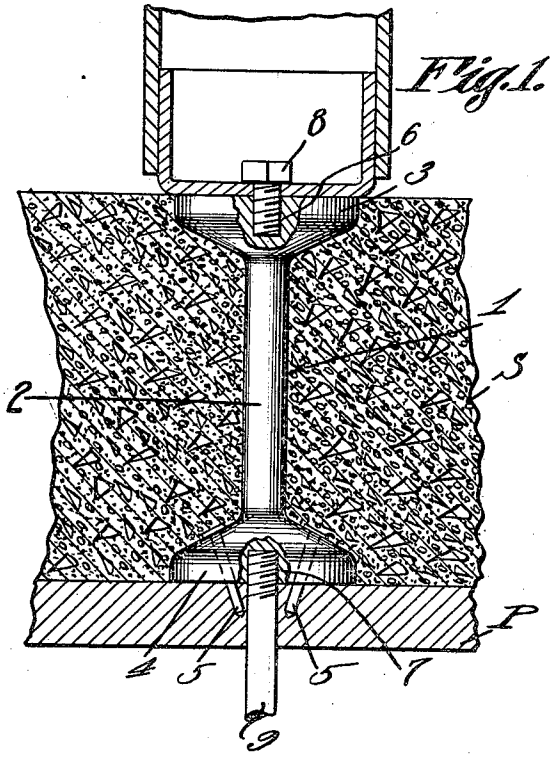


Fig. 3.

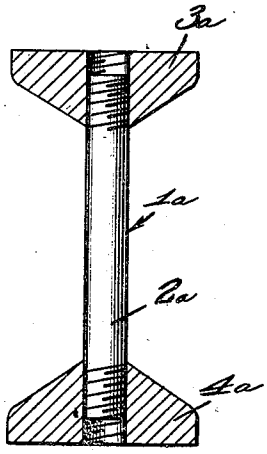
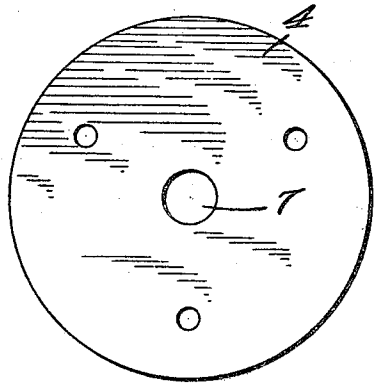


Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRY WILLIAM BERNSTROM, OF EDGEWOOD, RHODE ISLAND.

COMBINED REENFORCE AND LEVELER.

Application filed May 3, 1922. Serial No. 558,162.

To all whom it may concern:

Be it known that I, HARRY W. BERNSTROM, a citizen of the United States, residing at Edgewood, in the county of Providence and State of Rhode Island, have invented a new and useful Combined Reenforce and Leveler, of which the following is a specification.

This invention relates to concrete construction, and more particularly to means to be used in connection therewith to determine the thickness of the concrete employed therein.

The object of the invention is to provide what may be termed, leveling devices for use in determining the thickness of cement or concrete slabs, floors, roofs, and the like, and which insure uniform depth or thickness of said slabs and which also operate as reenforces for the concrete.

Another object is to provide a device of this character which may also be used as an insert and as an anchor for metal posts, shoes, plates and the like.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation of one of the devices constituting this invention shown applied, with parts connected thereby shown in section.

Fig. 2 is a plan view, and

Fig. 3 is a vertical section showing a slightly different form of the invention.

In the embodiment illustrated in Figs. 1 and 2, one form of the device constituting this invention is shown comprising a substantially spool shaped metal member 1, the shank 2 of which is integrally connected with heads 3 and 4 and the combined height of the heads and the shank represent the depth or thickness of the slab S in connection with which the device is to be used. The head 4 is designed to be secured to the bottom plate P of the form used for forming the slab S, and is secured thereto by nails 5 which pass through apertures provided in the head and in said plate P as is shown clearly in Fig. 1, and which hold the device 1 in upright position during the pouring of the concrete which is to form the slab and which flows around and embeds the device 1 therein. The heads 3 and 4 as shown in Fig. 1, have centrally disposed sockets 6 and 7 respectively, which are designed to receive bolts 8 or threaded rods 9 which form connectors for securing to the members 1 any object to be supported thereby such as shoes, plates, posts or any other objects. These heads 3 and 4 need not necessarily be socketed unless it is desired to employ them as supports for the objects above mentioned.

In Fig. 3, the device 1^a is shown having removable heads 3^a and 4^a carried by the shank 2^a which is threaded at its opposite ends for adjustable connection with said heads, said heads being shown centrally apertured and threaded to receive said shank and also to receive anchoring elements which may be secured into the outer ends of the bores.

In the form shown in Fig. 3, the removable heads permit shanks 1^a of different lengths to be employed to vary the height of the members according to the thickness of the slabs in connection with which they are to be used.

The leveling device constituting this invention may be made of malleable iron and after the wooden form for the slabs has been built, is fastened to the form with wire nails such as those shown at 5. A plurality of these devices are mounted in said form and after being connected as described, the concrete is poured into the form until it reaches the top of the screeds or leveling devices shown at 1 and 1^a which will be the required depth of the slab. The devices 1 and 1^a are used as screeding centers and thereby a slab of uniform thickness is obtained. These screeds or levelers may be manufactured to suit the depth of the slabs most commonly used, which are ordinarily from four to eight inches and the length of the device will be stamped or molded on the top head 3 thereof so that it may be seen at a glance just how deep a slab will be formed by the use of certain levelers.

The use of these devices guarantees a uniform thickness of the slab formed and the slab in connection with which they are used can be readily inspected for thickness after the pouring of the concrete since the heads of these devices may be readily located.

These devices, in addition to operating as

levelers also perform the function of reenforces and the concrete and as set forth above may be employed as inserts and as anchors as well for fastening metal posts or other objects to the floor or the ceiling in which they are used.

I claim:—

A combined leveller and reenforce and hanger for concrete structures comprising a shank threaded at its ends and having flat faced heads facing in opposite directions and provided with centrally disposed internally threaded bores extending therethrough, and having threaded engagement with said shank, said bores operating as attaching means for adjustable connection with the shank and to receive anchoring elements.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HARRY WILLIAM BERNSTROM.

Witnesses:

CYRUS T. EDDY,

JAMES C. BEACHWOOD.