

Dec. 22, 1931.

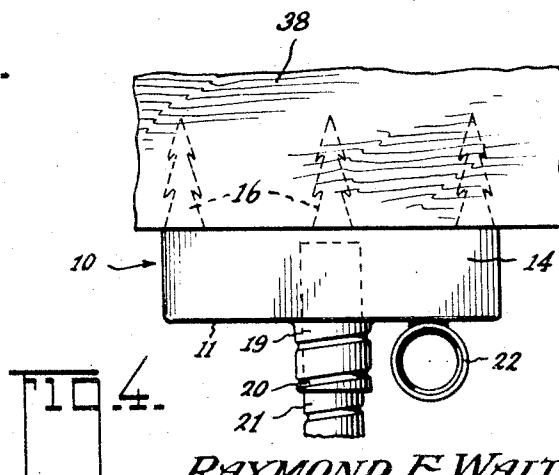
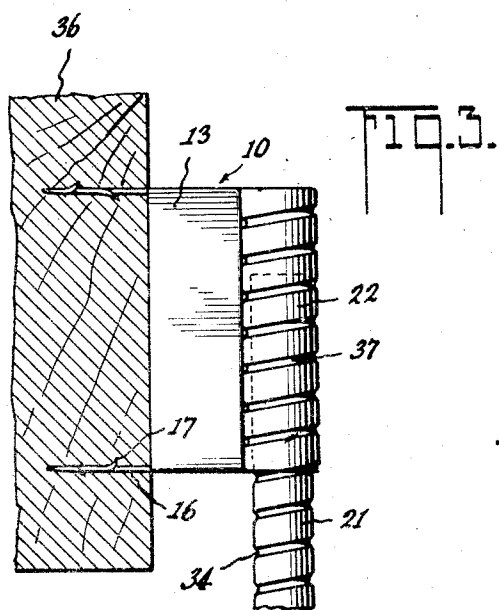
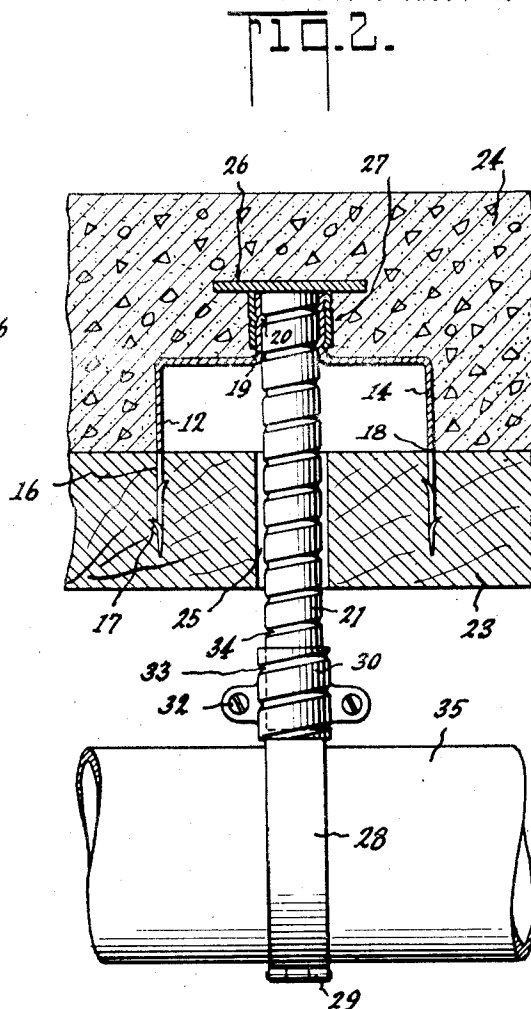
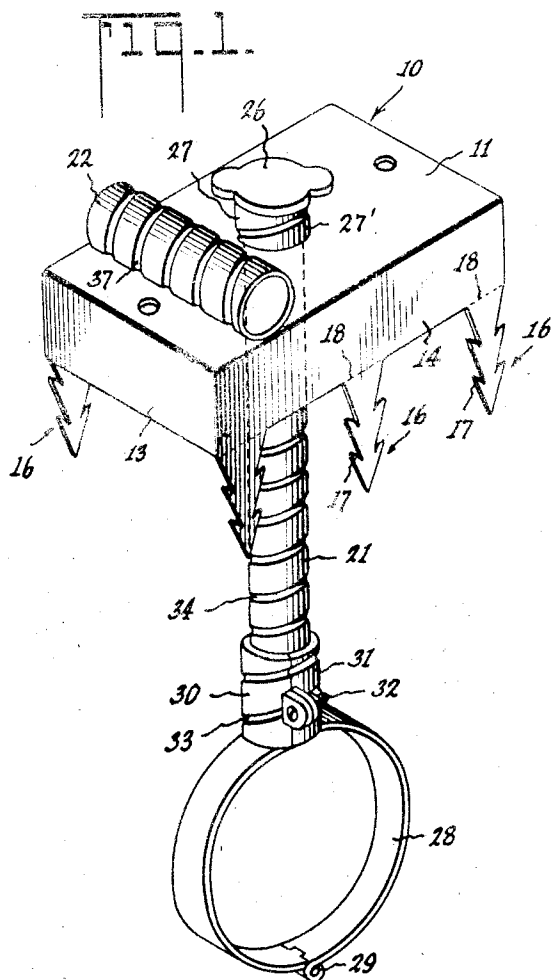
R. F. WAITE

1,837,930

HANGER

Filed March 4, 1931

2 Sheets-Sheet 1



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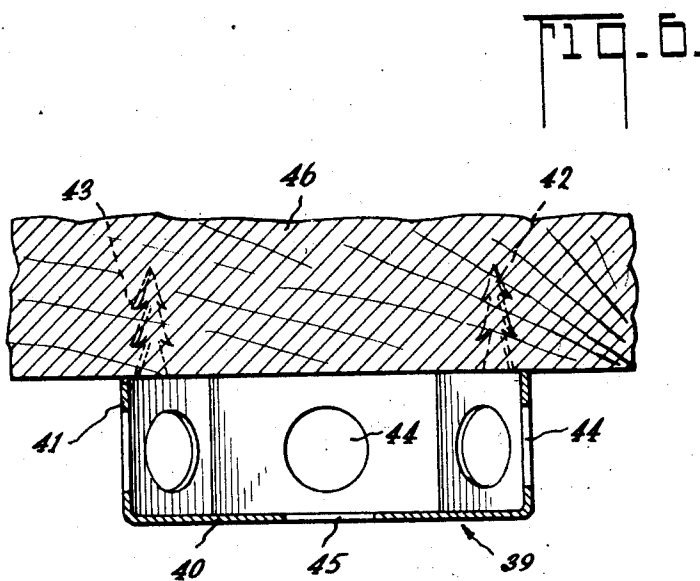
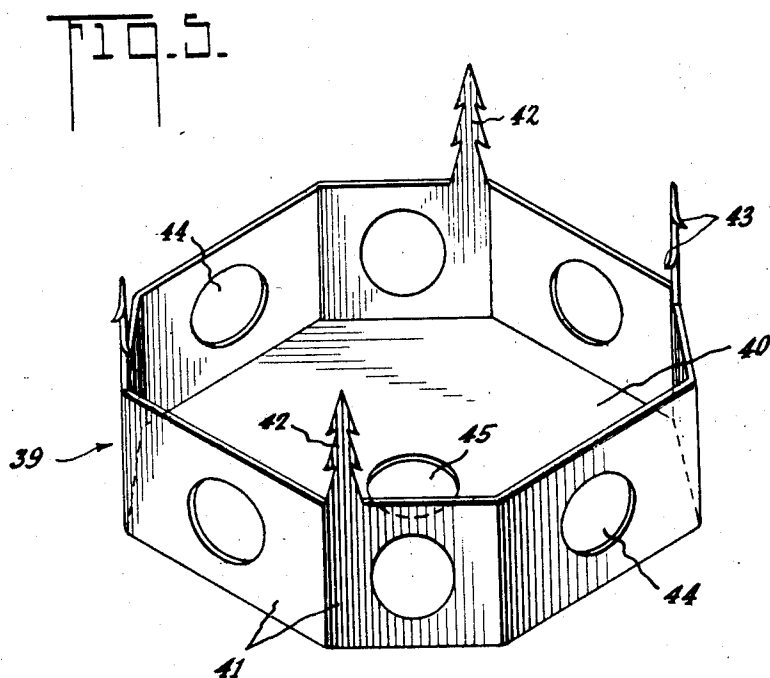
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# UNITED STATES PATENT OFFICE

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## HANGER

Application filed March 4, 1931. Serial No. 520,124.

This invention relates to hangers and supporting devices for use in building construction and more particularly to a novel and valuable support or hanger for use in supporting or suspending gas, water or other pipes, electric conduits and the like.

The primary object of the invention is to provide a simple and efficient support or hanger which is quickly and easily attachable to different parts of the building, and which is adjustable to support pipes, electric conduits and the like in horizontal or vertical positions, or otherwise.

Another object of the invention is to construct a hanger or support including a shell or casing having a plurality of prongs, desirably provided with barbs, to enable the shell or casing to be securely attached to the wood floor beams or other parts of the building structure.

Still another object of the invention is to provide a hanger shell having prongs by which the shell may be preliminarily secured to the falsework provided as a foundation for a concrete floor or the like, the hanger shell including means whereby the shell is securely anchored within the concrete after the same has been poured, after which the prongs may be removed with the falsework so that the hanger shell remains embedded within the concrete.

Yet another object of the invention is to construct a hanger or supporting shell which is adjustable to different positions, the shell being arranged to be anchored in concrete, or to be supported by driving its prongs into a wooden support or the like, the hanger shell including means for receiving and securing a pipe supporting rod or the like in different positions, and the concrete anchorage means being removable when not required.

A further object of the invention is to simplify and improve the construction of hangers generally and to provide a hanger device which may be economically manufactured, which is quickly and easily attached to the desired portion of the building, and which will remain securely in place for its intended purposes.

Other objects and advantages of the in-

vention will be hereinafter specifically pointed out, or will become apparent, as the specification proceeds.

With the above indicated objects in view, the invention resides in certain novel constructions and combinations and arrangement of parts, clearly described in the following specification and fully illustrated in the accompanying drawings, which latter show embodiments of the invention as at present preferred.

In the drawings:

Fig. 1 is a perspective view of a preferred form of the hanger device, illustrating one of its use positions;

Fig. 2 is a vertical sectional view through the hanger as shown in Fig. 1, illustrating the application of the hanger to a concrete floor or the like, the hanger being arranged to support a pipe beneath the floor;

Fig. 3 is a side elevation illustrating the application of the hanger device shown in Fig. 1 to the side of a wooden support or the like, the hanger being arranged to carry a supporting rod in a vertical position;

Fig. 4 is a view showing the hanger device of Fig. 1 attached to an overhead support, as for instance a wooden floor beam;

Fig. 5 is an inverted perspective view showing a modified form of hanger shell particularly adapted for use as an electric conduit outlet box; and

Fig. 6 is a vertical sectional view through the shell as shown in Fig. 5.

Referring more particularly to Figs. 1 to 4 of the drawings, the hanger includes a hollow shell or casing 10 having a flat top 11 and downwardly extending right angular side portions 12, 13, 14 and 15. The side portions 12, 13, 14 and 15 are provided with a plurality of downwardly extending prongs 16, these prongs being preferably provided with upwardly and reversely extending or twisted barbs 17. The point of juncture of the prongs 16 with the side portions of the shell 10 is preferably along a weakened line 18, the purpose of which will presently appear.

The top 11 of the shell is in this instance equipped with an upwardly extending collar

19, preferably threaded as seen at 20. This collar 19 is adapted to receive in threaded relation, and to suspend a suitable threaded supporting rod 21, which latter may be of any suitable character. The shell or casing 10 is also equipped with a supplementary screw threaded socket 22 which extends horizontally across the full width of the shell 10, as clearly seen in Fig. 1. While the shell 10 is here shown as of rectangular shape, the shell may be of any desired shape, and the supplementary socket 22 may be located in different positions, as may be desired.

Referring particularly to Fig. 2, I illustrate the application of the invention to the support of a pipe beneath a concrete floor or the like. As will be understood, the laying of a concrete floor is accomplished upon suitable wooden falsework, here indicated at 23, the concrete 24 being applied over the falsework, and the latter being removed after the concrete has set. The hanger shell 10 is driven into the false-work a distance so that the weakened lines of attachment 18 are substantially parallel with the top of the false-work. A suitable hole 25 is then provided through the falsework 23, and the supporting rod 21 is passed through the hole 25 and threaded into the collar member 19 of the shell top 11. A cap 26 having a sleeve portion 27 is then threaded to the exterior of the collar member 19, the sleeve portion 27 having threads 27' to cooperate with the threads 20 of the collar 19. The concrete 24 is then applied over the entire shell 10 and the falsework 23, and allowed to set. After the concrete has set, the falsework 23 is ripped away from the concrete 24, and the prongs 16 are bent from side to side, as may be necessary, to remove the same from the side portions of the shell along the weakened portions 18. The underside of the concrete floor 24 may then be plastered or otherwise finished, as may be desired. The downwardly projecting portion of the supporting rod 21 may then be equipped with any suitable supporting means for a pipe or the like, as, for instance, a circular hanger 28, which may be solid, or in two halves hinged together as indicated at 29, the respective halves of the hanger 28 having clamping portions 30 and 31 adapted to be securely clamped together around the rod 21 by means of bolts or the like 32. The clamping members 30 and 31 are desirably provided with threaded portions 33 to engage the threads 34 of the rod 21, so that the hanger 28 is securely interlocked upon the rod. In Fig. 2 I illustrate the hanger as supporting a pipe 35, but it is understood that any desired hanger or support may be applied to the rod, and any desired pipe or conduit supported therein.

In Fig. 3 I show the shell 10 as used at the side of any desired wooden or like support 36, such as the side of a floor beam for instance. In this instance the shell 10 is positioned so that the socket 22 is vertical, the supporting rod 21 being screwed upon the internally threaded portions 37 of the socket 22, and any suitable or desired hanger device being applied to the lower end of the rod 21. In this instance the prongs 16 are driven directly into the support 36, and the shell 10 is securely held in place by means of the barbs 17.

In Fig. 4 I illustrate the shell 10 employed in a manner similar to that shown in Fig. 3, the shell 10 in this instance however having its prongs 16 driven into the underside of a wood beam 38, which may be a floor beam or any other suitable support. In this instance the supporting rod 21 is threaded into the socket 19 from the top of the shell, instead of from the bottom as seen in Fig. 2. In this form, and also in the form shown in Fig. 3, both the collar portion 19 and elongated socket 20 may be employed for hanging or supporting purposes, as may be found convenient. The anchorage cap 26 is, of course, not required when the shell 10 is employed as seen in Figs. 3 and 4.

The shell or casing 10 may be constructed of pressed steel or other suitable material; and the supporting rod 21 may be a worm pressed rod or tubing, the tubing being flexible if desired. The hanger device 28 may be of malleable iron or the like, of any suitable size, shape or character.

Referring to Figs. 5 and 6 I illustrate a shell or casing 39 having an outer portion 40 and a plurality of side portions 41, the shell in this instance being of octagonal shape. The side portions 41 are provided with co-extensive prongs 42 having reversely twisted barbs 43. The side portions 41 and the outer portion 40 are preferably provided with knockouts or holes 44 and 45 respectively. The shell 39 is adapted to be secured to the underside of a floor beam or the like 46, and is adapted to provide a support, receptacle, or outlet box for electrical conduits and the like, which may be joined to main circuit wires within the shell 39, the cables or wires extending through the holes 44 and 45.

Considerable particularities of description, as to materials, part details, dimensions, capacities and utilities may have been herein indulged in, but it will be understood that these statements, made with particular reference to the embodiments of the invention illustrated in the drawings, are not in any way to be taken as definitive or limitative of the invention. Inasmuch as many changes could be made in the above constructions, and many apparently widely different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying

drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the language contained in the following claims is intended to cover all the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

In other words, the scope of protection contemplated is to be taken solely from the appended claims, interpreted as broadly as is consistent with the prior art.

What I claim is:

1. A hanger and the like including a shell having a top and sides, a plurality of prongs integral with said sides for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said prongs including barbs and being separable from said shell along a weakened line.

2. A hanger and the like including a shell having a top and sides, a plurality of prongs integral with said sides for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said supporting means including an internally and externally threaded collar extending upward from the top of said shell, a screw threaded supporting rod securable within said collar, and a hanger device removably secured on said rod.

3. A hanger and the like including a shell having a top and sides, a plurality of prongs integral with said sides for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said prongs being separable from said shell along a weakened line, said supporting means including a collar on said shell, a cap securable to said collar for use in anchoring said shell in concrete and the like, a supporting rod securable within said collar, and a hanger device removably secured on said rod, said hanger device including clamping members having portions interlockable with the said rod.

4. A hanger and the like including a shell having a top and sides, a plurality of prongs integral with said sides for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said prongs being separable from said shell along a weakened line, said supporting means including a screw threaded collar extending from the top portion of said shell, a screw threaded cap threadable to said collar for use in anchoring said shell in concrete and the like, a worm screw threaded rod securable to said collar, a hanger device removably secured on said rod, said hanger device having worm threaded portions interlockable with a worm threaded portion of said rod, and a supplementary socket member on the top of

said shell, said socket member being arranged horizontally and at right angle to said collar.

5. A hanger and the like including a shell having a top and sides, a plurality of prongs integral with said sides for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said prongs including barbs and being separable from said shell along a weakened line, said supporting means including an internally and externally threaded collar extending upward from the top of said shell, an internally threaded cap threadable on said collar for use in anchoring said shell in concrete and the like, a worm screw threaded rod securable within said collar, a hanger device removably secured on said rod, said hanger device including clamping members having worm threaded portions interlockable with the worm thread of said rod and a supplementary worm screw threaded socket member on the top of said shell, said socket member being arranged horizontally and at a right angle to said collar.

6. A hanger and the like including a shell having a top and sides, means on said shell for supporting a pipe, conduit, cable and the like, and means for effecting an anchorage for said shell in concrete and the like, said means including a removable cap having screw threaded engagement with said shell.

7. A hanger and the like including a shell having a top and sides, means for securing said shell to a support, and means on said shell for supporting a pipe, conduit, cable and the like, said supporting means including an internally and externally threaded collar extending upward from the top of said shell, a screw threaded supporting rod securable within said collar, and a hanger device removably secured on said rod.

In testimony whereof I hereby affix my signature.

RAYMOND F. WAITE.