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DEVICE FOR PLUMBING VERTICAL OBJECTS

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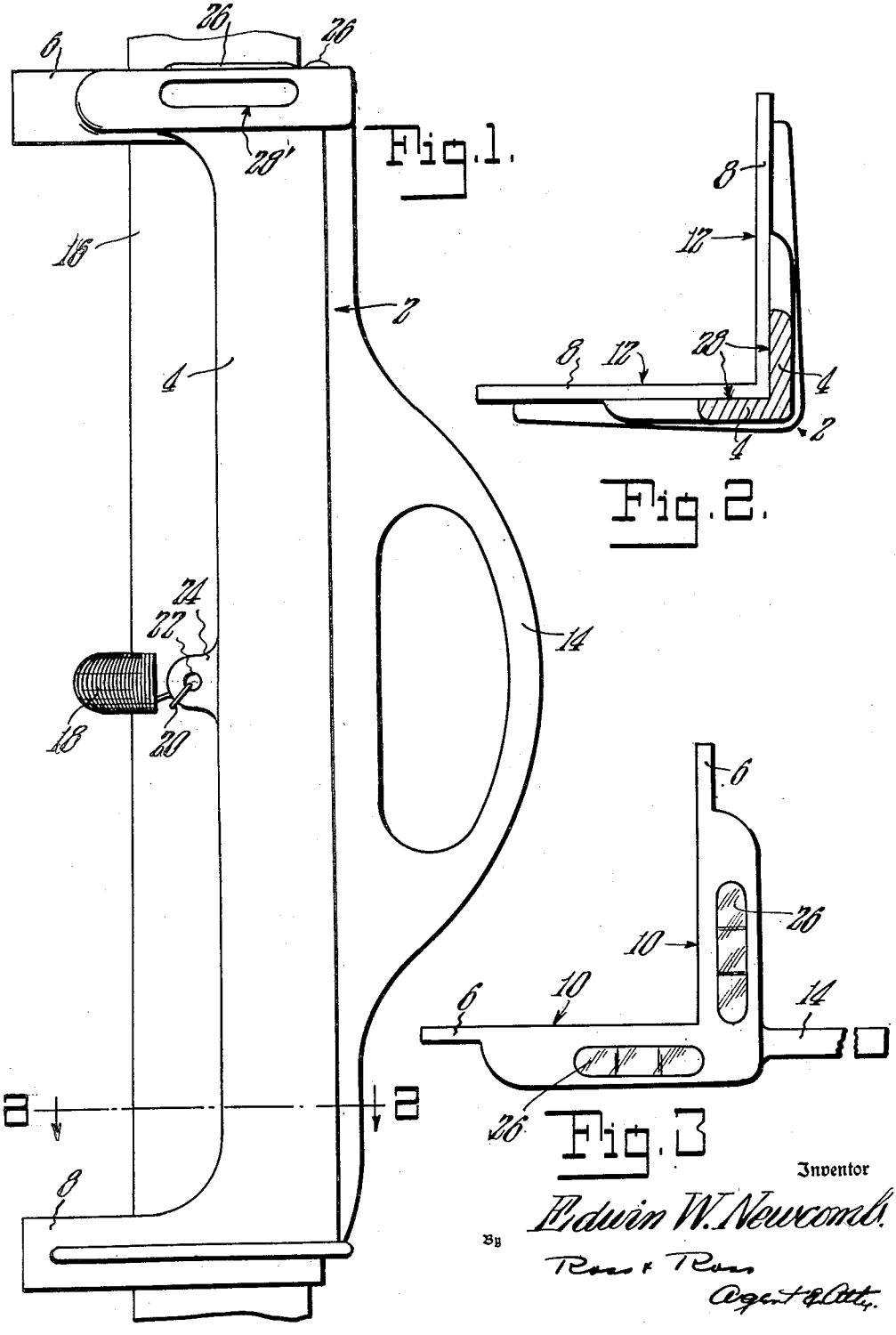


Fig. 1.

Fig. 2.

Fig. 3.

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DEVICE FOR PLUMBING VERTICAL OBJECTS

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2 Claims. (Cl. 33—207)

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This invention relates to improvements in devices for plumbing vertical objects such as a mast or the like.

The principal object of the invention is the provision of a plumb level device which is adapted to be releasably secured to a mast, pole or the like to enable the same to be set in a plumb vertical position.

Although adapted for general use the device is particularly adapted for use in connection with the setting of an antenna mast.

By reason of the novel construction, the device may be readily and easily associated with a mast so that the hands are free to manipulate the mast. Spirit levels are angularly disposed to indicate whether the mast is vertically disposed. In moving the mast to the desired vertical position, as indicated by the levels, the mast may be guyed in this position.

By being attached to the mast, the device becomes a part thereof for the setting of the mast and is important as the hands are relieved of holding the device and are free to manipulate the mast as desired.

The device is in the form of a unitary structure, relatively simple in form and economical to manufacture.

All of the above objects I accomplish by means of such structure and relative arrangements of parts thereof, as will fully appear by a perusal of the description below and by various specific features which will be hereinafter set forth.

To the above cited and other ends and with the foregoing and various other novel features and advantages and other objects of my invention as will become more readily apparent as the description proceeds, my invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claims hereunto annexed and more fully described and referred to in connection with the accompanying drawings wherein:

Fig. 1 is a side elevational view of a plumb level embodying the novel features of the invention;

Fig. 2 is a sectional plan view of the line 2—2 of Fig. 1; and

Fig. 3 is an end view of the device shown in Fig. 1.

Referring now to the drawings more in detail, the invention will be fully described.

The device includes an elongated frame 2 including adjacent flanges 4 secured together in an angular relation, as shown in Fig. 2.

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Extending angularly from upper ends of the frames there are an upper pair of arms 6 and a lower pair of arms 8.

Inner faces 10 and 12 of the arms of the pairs thereof are in alignment and the device being made from lightweight metal these faces may be machined.

A manually engageable part 14 extends from the frame 2 so that the device may be manipulated.

In use, the device is positioned so that a mast or the like 16 is engaged on adjacent sides by the inner faces of the arms of the pairs thereof.

Means for releasably securing the device to a mast or the like may take various forms. However, for illustrative purposes a tension spring 18 has opposite ends such as 20 which are receivable in openings 22 of lugs such as 24 extending from the parts 4 of the frame.

The spring will be arranged to snugly embrace the mast 16 and cause the inner faces of the arms to bear against the mast.

Level glasses 26 are set in the upper end of the device as shown in Figs. 1 and 3. These are of ordinary form and are disposed angularly as are the arms of the pairs thereof.

There may, if desired, be windows 28' at the sides of arms 6 as shown in Fig. 1.

With the device associated with the mast 16, the hands are free for tilting the mast so that the levels 26 indicate the vertical alignment of the mast.

On roof tops and the like where there is not an abundance of space and the erector's footing is not secure, the ability to grasp the mast is an advantage in setting the mast.

As a special feature of the invention, the inner faces 28 of the flange 4 of the frame are disposed outwardly relative to the inner faces 10 and 12 of the arms, see Fig. 2. In this way, the inner faces of the arms only are in engagement with the mast and is highly desirable so that the device bears on the mast at upper and lower arms only.

As will be observed, the device is readily and easily attached to a mast or the like so as to not require holding the same manually and thereby making the hands available for manipulating the object being plumbed.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and

not as being restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claims are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

1. A unitary plumb-level device comprising in combination, an elongated frame having flanges provided with inner angularly disposed faces, pairs of arms projecting outwardly from opposite ends of said frame having angularly disposed inner faces, level glasses carried by upper sides of the arms at one end of the support, the inner faces of said flanges being disposed in planes disposed outwardly from the planes of the inner surfaces of said arms, attaching means for securing said device against an object, and a manually engageable member extending outwardly from said frame, said attaching means including an elongated resilient member for encircling an object having opposite ends and lugs provided on said flanges having openings for receiving said ends of the member.

2. A unitary plumb-level device comprising in combination, an elongated frame having angularly disposed elongated flanges provided with angularly disposed inner faces, pairs of arms

extending laterally from upper and lower ends of said frame provided with angularly disposed object engaging inner faces disposed in planes spaced beyond the planes of the inner faces of the flanges with corresponding object engaging faces of corresponding arms of the upper and lower pairs thereof being in the same plane, level glasses carried by upper sides of the arms of the upper pair thereof, a manually engageable member extending outwardly from outer sides of said flanges, and means for releasably attaching the device to an elongated object with the inner faces of the arms disposed on adjacent sides thereof including an elongated resilient member for encircling said object and engageable connections carried by the flanges of the frame and opposite ends of the resilient member.

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