

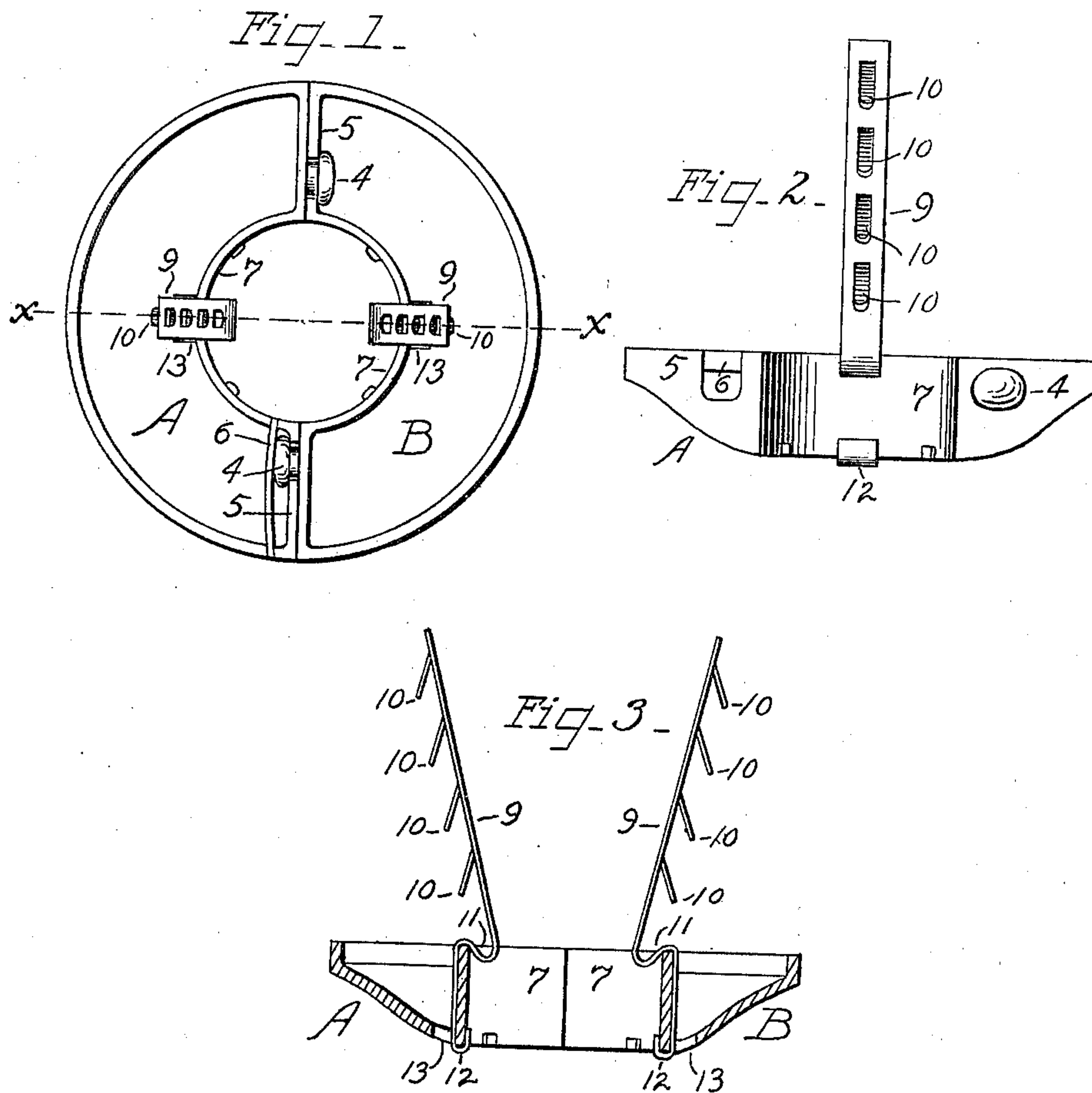
No. 704,562.

Patented July 15, 1902.

A. H. MUUS.
CEILING PLATE ATTACHMENT.

(Application filed May 16, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

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CEILING-PLATE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 704,562, dated July 15, 1902.

Application filed May 16, 1900. Serial No. 16,886. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR H. MUUS, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Ceiling-Plate Attachments, of which the following is a specification.

My invention relates to improvements in ceiling-plate attachments; and the object of my improvement is to provide cheap, simple, and efficient means for holding the plate up to the ceiling.

In the accompanying drawings, Figure 1 is a plan view of a ceiling-plate with my attachments applied thereto. Fig. 2 is a side elevation of one member of the said ceiling-plate and its attachment. Fig. 3 is a vertical section of the said ceiling-plate on the line *xx* of Fig. 1, together with my attachments or retainers in elevation.

A B designate the two parts of an ordinary floor or ceiling plate, the same being provided with fastening devices in the form of headed studs 4 and slotted flanges 5, together with the friction-spring 6 in the part A for bearing against the head of one of the said studs. At the inner edge of each part there is a semi-circular pipe-flange 7. These parts are of an ordinary construction, and other ordinary constructions of a similar two-part floor and ceiling plate may be substituted therefor. I consider it unnecessary to further describe the general construction of the parts A B. It is, however, essential to my invention that the inner edge be provided with a support for my holders or attachments, which support, as herein shown, is the pipe-flange 7.

I dispense with the friction-springs ordinarily employed in ceiling-plates for pressing against the pipe on which the plate is arranged. I hold the plate to the ceiling by means of the pronged retainers 9 9. No change whatever is necessary in the ceiling-plate, except to make two perforations or openings 13 in the front face of the plate. I form the said retainers of a strip of steel or other resilient metal, provided with outwardly-projecting prongs 10 on the body portion thereof, the said prongs being preferably

formed by cutting along their two sides and one end and then bending outwardly from the body of the metal, as shown. At the lower end of the body portion I form a hook-like shoulder 11, and on the extreme lower end of the retainers I form a hook 12, that confronts the said shoulder 11. The distance between the confronting faces of the said hook and shoulder is made to conform to the vertical depth of the support or pipe-flange 7.

The ceiling-plates and the retainers may be packed separately for transportation.

When about to be placed on a pipe, the user passes the hooked end of the retainer through the opening 13 on the face of the plate just inside of the flange 7 and then hooks the retainer upon the lower edge of the pipe-flange. He then forces the hooked shoulder 11 upon the upper edge of the flange, as shown, and the retainer is properly secured in place. The resiliency of the metal will enable the shoulder to be thus forced into place. With both retainers in place the two parts are placed on the pipe, the plate lifted toward the ceiling, the retainers being pressed inwardly against the pipe, so that the retainers may enter the pipe-hole through the ceiling as the plate is pushed up to place. The retainers spring outwardly against the sides of the said hole, when the prongs catch hold of the lath or other substance and hold the plate in place. By reference to the drawings it will be seen that when the two retainers are in place upon the ceiling-plate and before they are pressed inwardly to enter the hole through the ceiling they present two series of outwardly-projecting prongs, which series normally extend outwardly on diverging oblique lines, as best shown in Fig. 2, and that it is necessary to compress the retainers until these two series of prongs are nearly or quite parallel with each other in order to pass them into the hole for the pipe through the ceiling. They thus when inserted within the said hole present two series of prongs under outward tension, whereby any number of prongs, from one pair up to the entire number in the two series, may simultaneously bear upon the sides of the pipe-hole, according to the nature of the hole through which the pipe passes.

It is apparent that some changes from the specific construction herein disclosed may be made, and therefore I do not wish to be understood as limiting myself to the precise form of construction shown and described, but desire the liberty to make such changes in working my invention as may fairly come within the spirit and scope of the same.

I claim as my invention—

1. The combination of a two-part ceiling-plate with a pair of the herein-described resilient retainers free to move laterally toward and from each other, each retainer having a pronged body, the said retainers being arranged with their prongs projecting outwardly from the outer sides of the said pair, while the retainers are adapted to spring outwardly away from each other, against the side of the hole through which the pipe passes, and have fastening devices for securing them to the inner edge of the ceiling-plate, substantially as described.

2. The combination of a ceiling-plate having a flange at its inner edge, with a pair of the herein-described attachments consisting of the resilient retainers, each having a pronged body, with the hook-like shoulder near the lower end, and at the lower end a hook that confronts the said shoulder, the said retainers being detachably secured to the said ceiling-plate, with the said shoulder in engagement with the upper part of the said flange, and with the said hook in engagement with an opposing lower part of the said flange, substantially as described.

3. The combination of a ceiling-plate having a pipe-flange at its inner edge, with a pair of resilient retainers consisting of two independent arms, free to move laterally toward and from each other, and having at their lower ends interlocking devices for engaging the said pipe-flange, the said retainers being secured to the said flange by means of the said interlocking devices, the said retainers normally extending obliquely outwardly

away from each other, and adapted when compressed, to spring outwardly against the side of the hole through which the pipe passes, and having on their bodies a series of prongs projecting from the outer sides of the said pair of retainers, whereby the ceiling-plate retains its position with reference to the ceiling, under varying expansions and contractions of the pipe, substantially as described.

4. An attachment for ceiling-plates consisting of the retainers having a pronged body with the hook-like shoulder at their lower end, and at their extreme lower end with a hook that confronts the said shoulder, in combination with a ceiling-plate having a supporting-wall at its inner edge upon which the lower ends of the said retainers are secured by the engagement of the said shoulder and hook, with the opposing end faces of the said supporting-wall, substantially as described.

5. The combination of a ceiling-plate with a pair of diametrically opposite resilient retainers secured thereto and having each a series of outwardly-projecting prongs, the said two series of prongs normally extending on outwardly-diverging oblique lines, substantially as described.

6. As an article of manufacture, a ceiling-plate having substantially the shape of an annulus and provided on its inner curved edge with a flange, in combination with a pair of retainers, each having a hook-like shoulder, resting on the said flange at its upper part, a portion extending downwardly from the said shoulder, along by the side of the said flange and with its lower end bent into a hook, acting in opposition to the said shoulder, whereby the retainers are secured to the ceiling-plate, substantially as described.

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