April 18, 1933. G. C. FRANTZ 1,904,681

SPRING CONNECTION

Filed Oct. 6, 1930

Fig. 1.

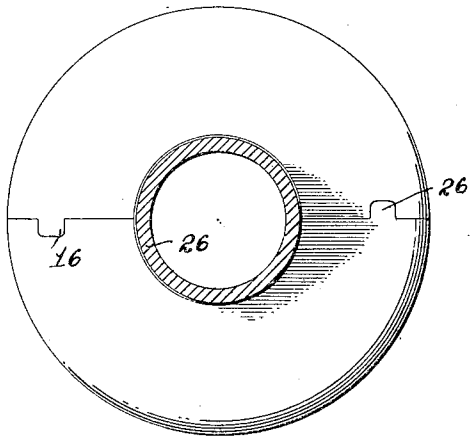


Fig. 2.

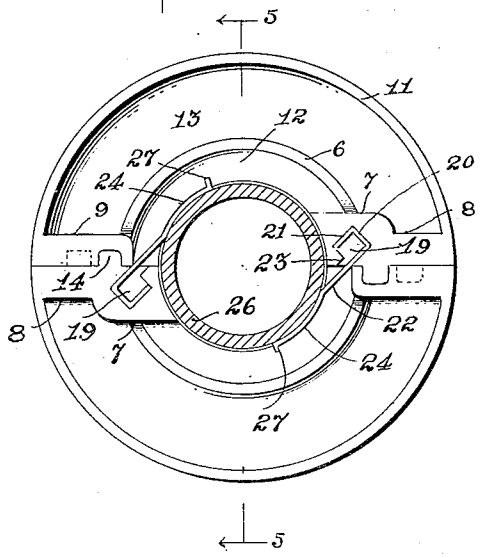


Fig. 3.

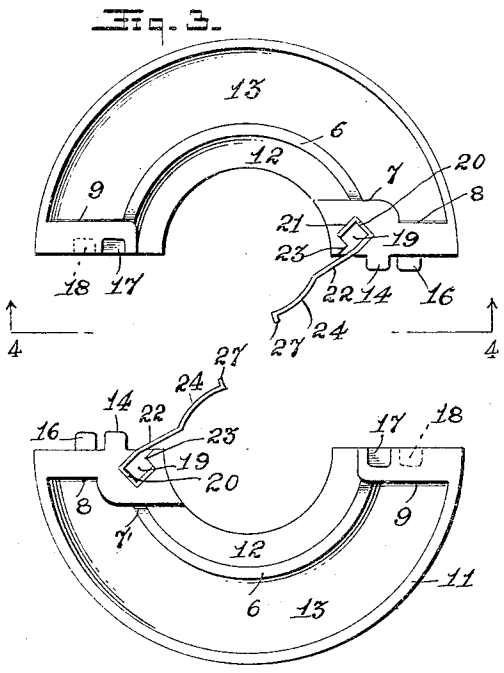


Fig. 4.

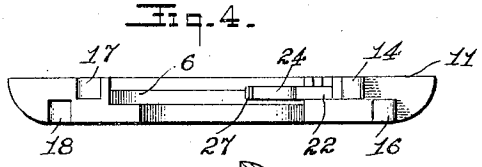
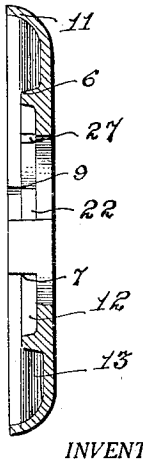


Fig. 5.



WITNESS:

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UNITED STATES PATENT OFFICE

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SPRING CONNECTION

Application filed October 6, 1930. Serial No. 486,691.

This invention relates to a finishing plate and has especial reference to a finishing plate which is placed around pipes which pass through the floors, ceilings, and walls of a building.

The object of this invention is to provide an improved finishing plate.

A further object of the invention is to provide a resilient means for closely contacting the pipe around which the sectional plate fits for holding the same securely thereto.

A still further object of the invention is to provide a sectional plate wherein the resilient members may, in case of breakage or distortion, be replaced without scrapping the entire section.

According to the invention, the finishing plate is constructed in half sections which are identical in shape and each have a semi-circular opening for fitting around the pipe, a flat spring removably mounted in each section and having a radius equal to the radius of the pipe, said springs being adapted to normally extend into the semi-circular opening so that when the said sections are placed upon a pipe, said springs will exert a frictional tension against the same to lock the same thereon.

The drawing illustrates an embodiment of the invention and the views therein are as follows:

Figure 1 is a top plan view of the finishing plate, showing the same in position around a pipe,

Figure 2 is a bottom plan view of the same,

Figure 3 is a like view showing the sections separated,

Figure 4 is a view taken on the line 4—4 of Figure 3 and looking in the direction of the arrows, and

Figure 5 is a vertical sectional view taken on the line 5—5 of Figure 2.

The finishing plate, as above indicated, is made of two sections which are identical and the outer contour of the two sections, when assembled, present the appearance of a saucer and may be finished in any desired color to match the color of some moldable material, such for instance, as bakelite, hard rubber, or the like.

The underside of each section is formed with an arcuate rib 6, the one end of which terminates in an offset shoulder 7 integral with an end member or wall 8, while the other end of said rib terminates in an end member or wall 9.

The end members or walls 8 and 9 are flush with the outer wall 11, while the rib 6, which is for the purpose of strengthening the section, falls short of the height of the outer wall 11, as shown in Figure 5.

Immediately within the rib 6 is a flat arcuate portion 12 corresponding with the flat portion 13 and these arcuate portions merely form the underface of the section.

The end wall 8 is provided with two offset lugs 14 and 16, the lugs each being in height one-half of the thickness of said end wall and with their outer ends flush with the lower and upper surfaces of said wall, respectively.

The end wall 9 is provided with recesses 17 and 18 and these recesses are complementary to the lugs on a like section, which, when the two sections are assembled, as in Figure 2, the lugs 14 and 16 of each section will fall within the recesses 17 and 18 of the complementary section and thus form locking means which insures the sections forming a smooth, even surface without any danger of the one section rising above the other.

A square recess 19 is formed in the offset shoulder 7 and the end wall 8 is angularly disposed in respect to the plane of the end walls 8 and 9, and the channel-shaped end 21 of a flat spring 20 is adapted to fit securely therein and its extended end 22 to pass through a slot 23 extending through the front face of the wall 8.

The extending end 22 of the flat spring 20 has an arcuate portion 24 whose radius is exactly the same as the radius of the pipe 26 around which the same is adapted to fit and the outer end of this flat spring is upturned, as at 27, to prevent any binding when two sections of the finishing plate are being placed in position around the pipe.

The springs are so arranged that when they are not engaged with the pipe their arcuate portion 24 extends within the space intend-

ed to be occupied by the pipe, as illustrated in Figure 3.

This will insure the springs frictionally engaging the periphery of the pipe and will tend to hold the sections more securely together.

The flat springs will provide a greater frictional area than springs formed of round wire and on account of the manner of locating the same in the sections, are freely removable in case of breakage or distortion.

Of course, the finishing plate illustrated may be changed in various ways without departing from the invention herein set forth and hereafter claimed.

I claim:—

1. The combination of a spring having one end bent to produce an open resilient multi-angular part and a member having a portion with a multi-angular recess therein continued by a relatively narrow slot substantially at one corner thereof, said resilient multi-angular part being adapted to slidably and separably fit into said recess with a portion of said spring extending through said slot.

2. The combination of a spring having an open resilient substantially rectangular part formed by bending the end of the spring laterally and then inwardly substantially parallel to the main part of the spring, and a member having a portion with a substantially rectangular recess therein continued by a relatively narrow slot at substantially one corner thereof, said resilient rectangular part being adapted to slidably and separably fit into said recess with a portion of said spring extending through said slot and outwardly therefrom.

3. The combination of a spring having one end bent to provide a resilient multi-angular part and a member having a multi-angular recess continued by a relatively narrow slot substantially at one corner thereof, said resilient multi-angular part being adapted to slidably and separably fit into said recess with a portion of said spring extending through said slot and outwardly therefrom, said outwardly extending part of the spring having a curved portion adapted to fit the contour of a pipe.

4. The combination of a spring having one end bent to produce a resilient multi-angular part, and a member having a portion with a multi-angular contour complementary to the multi-angular part of the spring, said resilient multi-angular part of the spring being adapted to slidably and separably fit said complementary multi-angular part, with the outer end of the spring extending outwardly from said multi-angular contour, said outwardly extending part of the spring having a curved portion adapted to fit the contour of a pipe.

5. The combination of a spring having one end bent to produce a resilient substantially rectangular part, and a member having a portion with a substantially rectangular contour complementary to the rectangular part of the spring, said resilient rectangular part of the spring being adapted to slidably and separably fit said complementary rectangular part, with the outer end of the spring extending outwardly from said rectangular contour, said outwardly extending part of the spring having a curved portion adapted to fit the contour of a pipe.

In testimony whereof I have signed my name to this specification.

GROVER C. FRANTZ.