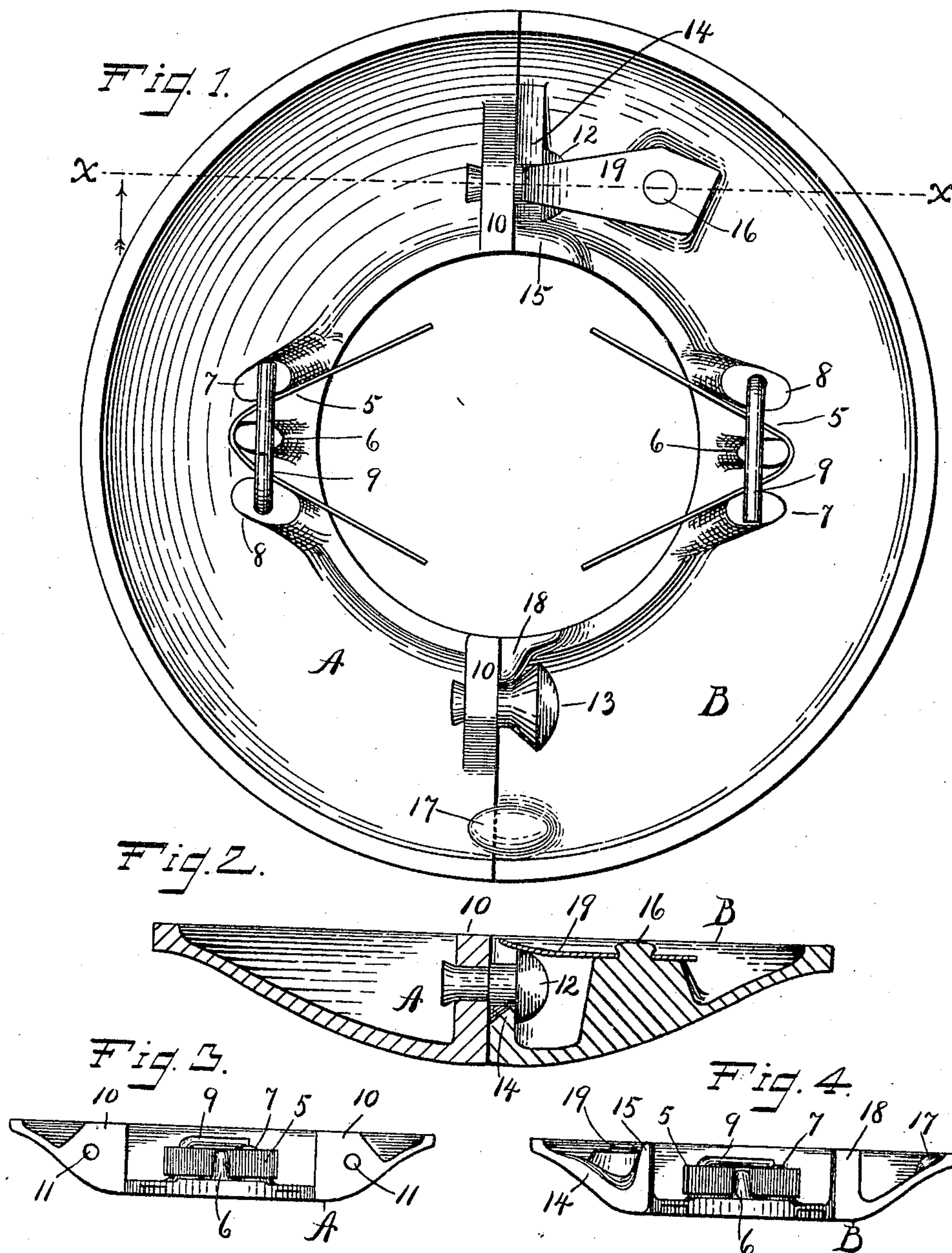


No. 837,536.

PATENTED DEC. 4, 1906.

A. J. BEATON.
FLOOR AND CEILING PLATE.
APPLICATION FILED OCT. 13, 1905.



Witnesses.

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FLOOR AND CEILING PLATE.

No. 837,536.

Specification of Letters Patent.

Patented Dec. 4, 1906.

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To all whom it may concern:

Be it known that I, ALLAN J. BEATON, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Floor and Ceiling Plates, of which the following is a specification.

My invention relates to improvements in floor and ceiling plates; and the objects of my improvements are simplicity, economy, and uniformity in construction and convenience and efficiency in use.

In the accompanying drawings, Figure 1 is a reverse plan view of my plate. Fig. 2 is a vertical section of the same on the line $x x$ of Fig. 1, with the headed stud in side elevation. Fig. 3 is an edge view, on a smaller scale, of one of the parts before the headed studs are attached. Fig. 4 is an edge view of the companion part.

The general form of my plate is old, and the plate is composed of two semi-annular detachable parts A and B. Such plates are usually provided with a spring at their inner edge to bear upon the pipe to which the plate is applied and prevent the plate from slipping down. I form the springs of strips of sheet metal doubled upon themselves at the middle with a rounded bend and with the portions on each side of said rounded bend standing in about the same position as the two sides of a letter V, whereby the springs are in the form of a V with a rounded instead of an angular base. Each of the parts A B is provided near its inner edge with a central post or pin 6 and confronting holding-faces on each side of the said post. One of these holding-faces is formed on the side of a stop-lug 7, and the other is formed on the side of the fastener-holding lug 8, projecting from the outer end of which lug 8 is the malleable fastener wire or prong 9. This wire or prong is cast in, and when cast it stands up substantially in alignment with the said lug 8. The V-shaped springs are compressed slightly to bring the legs of the V nearly enough together to enter the springs between the holding-faces of the lugs 7 and 8, while the central post or pin 6 enters the rounded apex of the V on the inside, after which the malleable fastener wire or prong 9 is bent down over the edge of the spring with its outer end resting on the outer end of the stop-lug 7, all as shown. While this is the preferred construction for applying and securing the pipe-springs, other

known constructions may be substituted therefor, or the springs may be omitted without any change in the construction for connecting the two parts of the plate, as herein- after described.

The two parts are formed with their meeting ends on substantially a straight diametrical line. The part A is provided at its ends with flange-like lugs 10, which are first cast without any projection beyond the said diametrical line. The ends may thus be readily dressed off on a straight line to correct any imperfection in the casting. The said lugs are drilled by any suitable machine, so as to accurately form and locate the holes 11 in said lugs, as shown in Fig. 3. In one of these lugs I secure the headed stud 12, which has a head with a rounded outer face and a square or right-angular under face that stands a given distance from the face of the lug 10, as shown in Fig. 2. In the other one of the lugs 10 is the headed stud 13, which has a beveled face under its head, as shown at the lower part of Fig. 1. The part B has at one end a flange or rib 14, with a beveled outer face and an inner holding-face, and adjacent to the said rib is the corner-lug 15 at the inner corner of the said end. A spring 19 is secured by a rivet-like projection 16 to the body of the part B, with its end directly over the space that is partially bounded by the rib 14 and lug 15, as best shown in Fig. 4. This end of the part B is for use in connection with the end of A, which has the stud 12. The other end of the part B is provided with an overhanging lug 17, the projecting part of which is designed to bear on the inner face of the part A, the said part B being also provided with a corner post or lug 18, having a beveled inner face for being engaged by the beveled under face of the stud 13. The ends of this part B may be dressed off on a straight line to cure any defect in the casting, care being taken not to injure the lug 17.

In order to connect the two parts A and B, the lower ends (when in the position shown in Fig. 1) are first connected by placing the projecting end of the lug 17 on the inner face of the part A and the beveled head of the stud 13 opposite the beveled edge of the corner-post 18, the opposite ends of the two parts being slightly separated. Then bring the rounded outer face of the head of the stud 12 against the end of the spring 19 and the confronting beveled face of the rib 14 and the corner-lug 15 and press the parts together.

The spring will yield and bend away from the rib 14 to let the head of the headed stud 12 pass the said rib, when the spring will force the end of the part A into the plane of the part B, and the headed stud will come into place with a snap, so as to engage the inner face of the said rib and hold the parts in engagement, as shown in Fig. 2. In order to detach the parts, the spring end of the parts A and B are simultaneously pressed in opposite directions to force the headed stud 12 against the spring until the head is withdrawn from the rib 14.

By my improvement the ends of the two parts may be readily dressed off to insure a good joint, and the headed studs may be set with precision, so as to furnish a uniform product. The parts are readily and conveniently attached and detached and are firmly held together. The construction and arrangement of the pipe-bearing springs is simple and efficient.

I claim as my invention—

1. In a two-part floor or ceiling plate, the combination of one part having the flange-like lugs 10 at its ends with their faces within the plane of the said ends, and separately-formed headed studs secured in and project-

ing from the said lugs, with the companion part having an overhanging lug and corner-post at one end for being engaged by one of the said headed studs, and having at its other end the corner-lug, rib, and spring for being engaged by the other one of the said headed studs.

2. In a two-part floor or ceiling plate, the combination of one part having flange-like lugs at its ends and headed studs projecting from the faces of the said lugs, one of the said studs having a head with a right-angular under face, and the other having a head with a beveled under face, with the companion part having at one end the overhanging lug 17 and beveled corner-post for being engaged by the stud having the said beveled under face, said companion part having at its other end the rib, corner-lug, and a spring for being engaged by the other one of the said headed studs, the said spring having its end facing the space that is partially inclosed by the said rib and corner-lug for bearing on the said headed stud to hold it in place.

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