

(No Model.)

J. W. CHAMBERLAIN.
CEILING PLATE.

No. 530,394.

Patented Dec. 4, 1894.

Fig. 1.

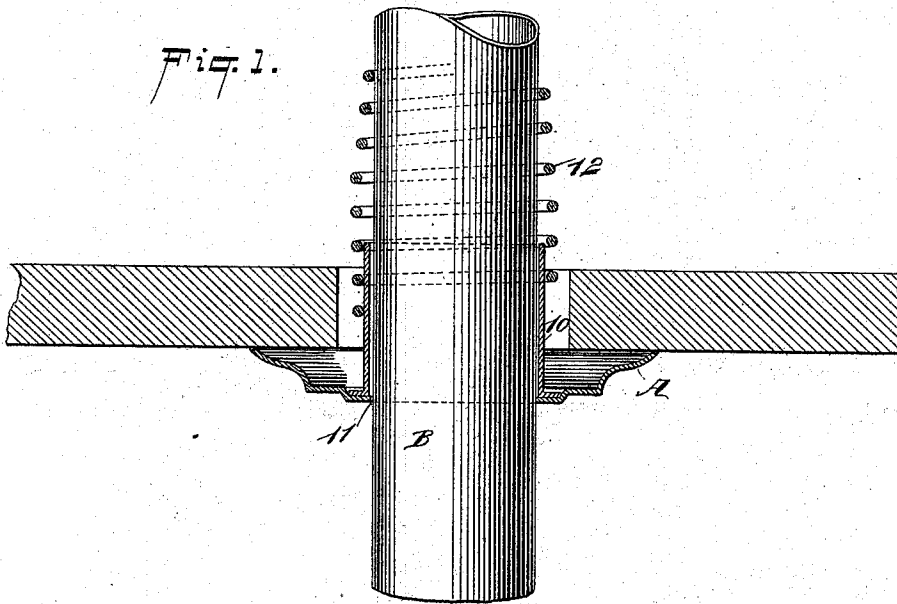


Fig. 2.

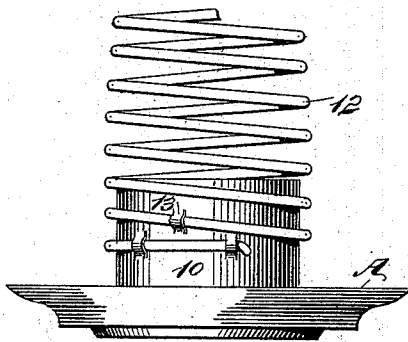
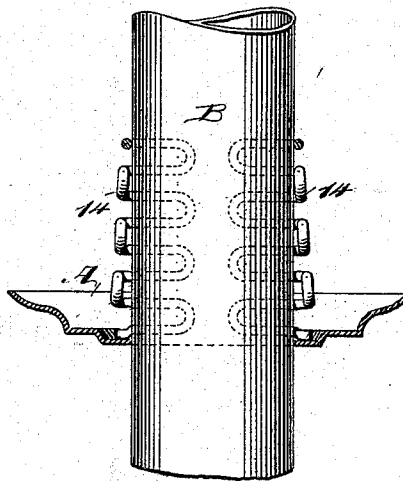


Fig. 3.



WITNESSES:

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CEILING-PLATE.

SPECIFICATION forming part of Letters Patent No. 530,394, dated December 4, 1894.

Application filed April 6, 1894. Serial No. 506,576. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. CHAMBERLAIN, of Bangor, in the county of Penobscot and State of Maine, have invented a new and useful Improvement in Ceiling-Plates, of which the following is a full, clear, and exact description.

My invention relates to an improvement in ceiling plates, and it has for its object to provide such a device with a gripping device that will firmly grip a pipe and will expand and contract laterally with the lateral contraction of the pipe, and will also expand and contract vertically with the expansion and contraction of the pipe, without losing its grip thereon. Thus the ceiling plate will be held at all times and under all conditions to which the pipe may be subjected, in the position in which it was placed.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a pipe and a vertical section through a ceiling plate through which the pipe is passed. Fig. 2 is a side elevation of the ceiling plate shown in Fig. 1; and Fig. 3 is a vertical section through a slightly modified form of the plate, and a side elevation of the pipe with which the plate is connected.

In carrying out the invention the body A of the ceiling or wall plate may be of any approved formation, and may be provided with a collar 10, secured to the back thereof around the opening 11 in the body through which the pipe B is made to pass. The attaching device of the wall or ceiling plate is of a spring character and of a clinging nature, and ordinarily it consists of a spiral spring 12, made to taper slightly, being smallest in coil at its free end, but the taper may be more or less decided than shown in the drawings. When a spiral spring is used, as

shown in Fig. 2, and the collar 10 is employed, it is secured to the said collar in any approved manner, ordinarily, however, by passing one or more coils of the spring through sockets 13, formed in the collar.

The spring shown in Fig. 2 entirely surrounds the pipe, whereas, a spring pipe clamp 14, illustrated in Fig. 3 only partially surrounds the pipe and is made in two sections, each section being transversely semi-circular, the wire being returned upon itself to form any given number of return coils. One section of such a spring is usually placed opposite the other, and in the said Fig. 3 the collar 10 is omitted from the body of the wall or ceiling plate, the spring sections being attached directly to the back of the plate. The spring 14 is made to taper also.

Under both forms of fastening devices it is evident that the said devices will be both laterally and vertically expansible, and therefore will go with the pipe in either of said directions without releasing its hold upon the pipe, or without in the slightest degree moving the wall or ceiling plate from the position in which it was placed, since the pipe is gripped only by the upper coils of the springs.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A wall or ceiling plate provided with an attaching device adapted to receive and grip a pipe or like object passed through the said plate, the said gripping device being capable of both lateral and longitudinal expansion and contraction without releasing the pipe or article passed in contact with it, substantially as shown and described.

2. A wall or ceiling plate provided with a gripping device, consisting of a tapering spring attached to the plate, said spring being capable of lateral, longitudinal, or vertical expansion and contraction, conforming to the action of the pipe without affecting the position of the wall plate, or releasing itself from the pipe, as and for the purpose set forth.

3. The combination, with a wall plate, of a gripping device, consisting of a tapering

spring in the shape of a coil attached to the
said plate, the contracted end being free, the
spring being adapted for clinging engage-
ment with the pipe at its free end, whereby
5 the spring may contract and expand laterally
or longitudinally without affecting the posi-
tion of the plate or releasing the pipe, the ac-

tion of the spring corresponding to the ac-
tion of the pipe, as specified.

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