E. C. BRUEN.

Friction-Clutch for Extension Chandeliers.

No. 167,984. Patented Sept. 21, 1875.

Fig. 1.

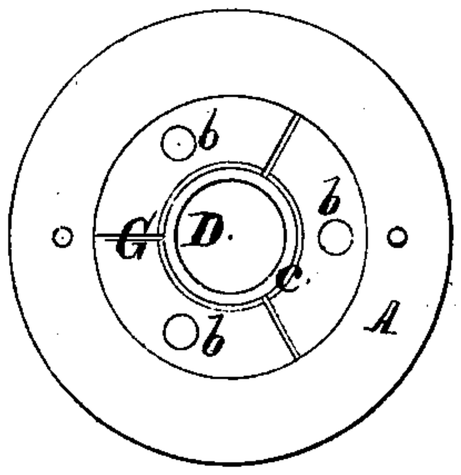
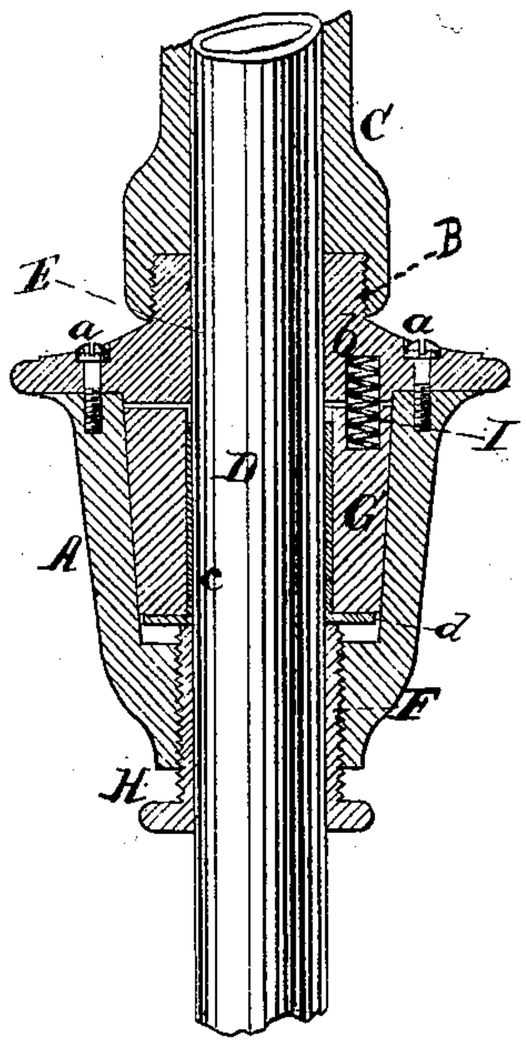


Fig. 2.



Witnesses
Otto Hufeland
Chas. Wahlers

Inventor.
Edwin C. Bruen
by Van Santvoord & Hauff
his attys

UNITED STATES PATENT OFFICE.

EDWIN C. BRUEN, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF AND CHARLES T. BRUEN.

IMPROVEMENT IN FRICTION-CLUTCHES FOR EXTENSION-CHANDELIERS.

Specification forming part of Letters Patent No. **167,984**, dated September 21, 1875; application filed August 28, 1875.

To all whom it may concern:

Be it known that I, EDWIN C. BRUEN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Friction-Clutch for Extension-Chandeliers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan view of my clutch when the upper division of the shell is removed. Fig. 2 is a vertical central section thereof in its complete form.

Similar letters indicate corresponding parts.

My invention relates to a friction-clutch for extension-chandeliers or drop-lights, and particularly that class of extension-chandeliers which are constructed with a slide constituting the gas-supply pipe of the chandelier and telescoping within the main gas-pipe.

The essential feature of my improved clutch consists in a shell whose interior is inclined toward the lower end, which is provided with a screw-thread, or its equivalent device, for the purpose of connecting it to the main gas-pipe, and which is arranged to permit of the passage of the chandelier-slide through it, in conjunction with a friction-clamp arranged loosely in the shell, and in conjunction with an adjusting device for regulating the action of the clamp, the whole being arranged in such a manner that when the slide is moved upward, together with the chandelier, it carries up the clamp and the movement of the slide is unimpeded, while, by means of the adjusting device, the position of the clamp can be so regulated that it prevents the slide from moving down by its own inherent gravity and that of the parts attached thereto.

In the drawing, the letter A designates the exterior shell of my clutch, which part I prefer to make in two divisions and unite by screws *a*, or by any other suitable means. On the upper division of this shell A is formed a screw-thread, B, which serves to connect it to the main gas-pipe C of an extension-chandelier fixture; or, if seen fit, a bayonet-joint or any other equivalent device may be used in lieu of the screw-thread. D designates the slide of the extension-chandelier, having the form of a pipe, packed and arranged to slide in the main gas-pipe C, the slide passing also through the clutch, and to this end the shell A has openings E F on its top and bottom ends—one of the openings containing a lifting-screw, H, as hereinafter described.

The interior of the shell A is inclined or is made to taper or decrease in diameter toward the lower end, so that it has the form of an inverted truncated cone, and to the said tapering interior of the shell is fitted a friction-clamp, G, which is divided into three (more or less) parts, as shown in Fig. 1. This friction-clamp G rests loosely in the shell A, and its interior surface is made tubular so as to surround the chandelier-slide D when the same is passed through the clamp. By the inherent gravity of the clamp it tends to fall to the bottom of the shell, and if an attempt is made to move the shell down, or if the slide is permitted to follow its inherent gravity, the clamp is caused to wedge itself firmly against the same, and by these means the slide and the chandelier which it supports is prevented from moving downward.

It is obvious that when the slide is moved upward it displaces and carries with it the friction-clamp G, and therefore the slide moves freely upward.

With the clamp G I have combined an adjusting device, H, which may be constructed of a screw, as shown, or which may be made in the form of a cam or lever or in any suitable form. By means of this adjusting device I regulate the power with which the clamp hugs the slide, so that, if desired, the slide can be drawn down by applying the proper force. This purpose is facilitated by interposing between the metallic surfaces of the clamp and of the slide a lining, *c*, of leather, flannel, or other suitable material, whereby the clamp is kept from abrading and cutting in the surface of the slide. If the sections of the clamp are made of wood or other soft material, the lining can be dispensed with. The action of the clamp on the slide D is insured by subjecting the clamp to the action of the springs I, which are placed in sockets *b* in the top of the shell, and which have a tendency to press the clamp downward.

The clamp G, instead of being made of wedge-shaped sections, may be constructed of one or more balls or rollers, which fit between the inner surface of the shell A and the slide D, and which are subjected to any suitable lifting or adjusting device.

What I claim as new, and desire to secure by Letters Patent, is—

A friction-clutch for extension-chandeliers, constructed of a tapering shell, A, a friction-clamp, G, and of an adjusting device, H, the whole being combined and adapted to operate substantially as described.

In witness whereof I have hereunto set my hand and seal this 9th day of August, 1875.

E. C. BRUEN. [L. S.]

In presence of—
CHAS. WAHLERS,
J. VAN SANTVOORD.