(No Model.)

J. SCHMIDT.

POST FASTENING.

No. 568,629. Patented Sept. 29, 1896.

FIG. 1.

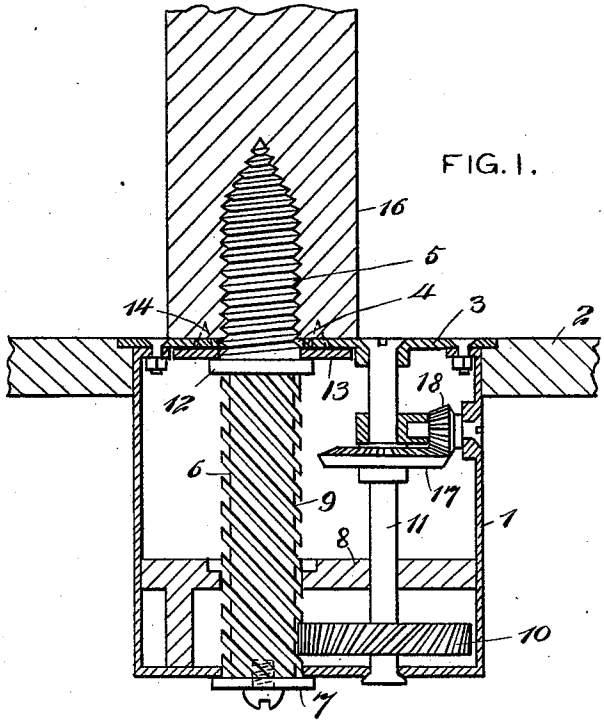
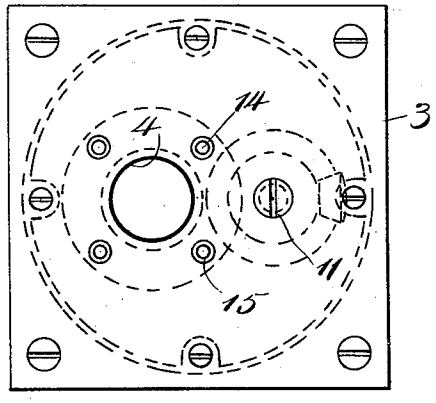


FIG. 2.



WITNESSES:

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POST-FASTENING.

SPECIFICATION forming part of Letters Patent No. 568,629, dated September 29, 1896.

Application filed July 30, 1896. Serial No. 601,021. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SCHMIDT, of New York, in the county and State of New York, have invented a new and Improved Post-Fastening, of which the following is a full, clear, and exact description.

This invention relates to devices particularly designed for securing standards or posts to a flooring, and to which partitions are secured, particularly such wooden partitions as are usually placed in office-buildings.

The object of the invention is to provide a simple means whereby such posts may be secured to a floor without damage to the floor, and by means of which a partition may be easily removed when desired.

I will describe the device embodying my invention, and then point out the novel features in the appended claims.

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

Figure 1 is a vertical section of a device embodying my invention, and Fig. 2 is a top plan view thereof.

The invention comprises a casing 1, of suitable material, such, for instance, as metal, and of any desired shape, but preferably cylindrical. This casing 1 is to be inserted through an opening formed in a floor 2, and it is secured therein by means of screws or similar fastening devices passing through a top plate 3, attached to the upper end of the casing 1. Of course the top plate 3 will be seated in the floor sufficiently to bring its top surface flush with the floor.

Arranged to move vertically in the casing and through an opening 4 in the plate 3 is a screw 5. Within the casing 1 this screw has a shank portion 6, the lower end of which is movable through an opening formed in the lower end of the casing 1. On this lower end the shank portion 6 is provided with a flange 7, larger in diameter than the opening through the lower end of the casing 1. Therefore when the screw is in an upper position the said flange 7 will engage against the bottom of the casing and prevent the entrance of dust through the opening around the shank and screw. This shank portion also extends through an opening in the guide-bar 8, extended across the casing 1. The shank portion 6 is provided with a worm 9, engaging with a worm-wheel 10, secured to the lower end of the shaft 11, extended upward through an opening in the guide-bar 8, and also through an opening in the top plate 3. The upper end of this shaft 11 is designed to be engaged by a suitable tool for rotating the shaft. As here shown, the upper end of said shaft is provided with a slot in which an ordinary screw-driver may engage, but it is obvious that it may be provided with a square head to be engaged by a wrench.

Mounted on the screw 5, at the junction of the screw portion and the worm portion, is an annular collar 12, and mounted loosely on the screw between said collar and the top plate is a ring-plate 13. At suitable intervals on this ring-plate are placed pointed lugs 14, which extend upward and are adapted to pass through openings 15 in the top plate 3, to pass into the end of a post, such as 16, to more securely hold the same from rotating or other displacement.

The guide-bar 8 has an annular depression around the hole through which the screw-shank passes, and in this depression the collar 12 may rest when the screw is in its lowest position.

In operation the device will be secured in the floor at the desired point for securing a post, and of course when first placed therein the screw portion will be wholly within the casing. Then the post, which has previously had a hole formed in its lower end, will be placed in position, with the hole in the line of movement of the screw.

After the post shall have been placed in position a suitable tool is engaged with the upper end of the shaft 11, and it is obvious that a rotary movement of this shaft 11, through the medium of the worm-gearing, will rotate the screw and turn the same into the post. When turned nearly home, the ring-plate will be forced upward by the collar 12 and force the pointed lugs into the lower end of the post.

I have described my invention so far as constructed for insertion in a floor, but in certain events it may be preferable to engage the casing in the lower end of the post and engage the screw 5 in the flooring. To accommodate the device to this purpose, I

provide the shaft 11 with a beveled gear 17, meshing with a beveled pinion 18, having its shaft extended through the side wall of the casing 1 and provided at its outer end with means to be engaged by a turning tool. In using the device for the purpose last described the lower end of the post will be provided with an opening and the casing 1 be inserted therein and secured in the manner described as connecting it with the floor. Then, of course, by boring a hole transversely in the post in line with the shaft of the pinion 18 a screw-driver may be inserted to rotate the parts and force the screw into the flooring.

It will be seen that the device as described is substantially dust-proof. Therefore it is not liable to become clogged. I have also described it as adapted for use in erecting partitions; but it is to be understood that it is equally applicable for railing-posts, stair-posts, and the like.

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

1. A post-fastening, comprising a casing, a screw movable longitudinally in said casing, the shank of said screw having a worm-thread, a shaft extended through the casing and having its outer end adapted for engagement by a turning tool, and a worm-gear on said shaft meshing with the worm-thread on the screw-shaft, substantially as described.

2. A post-fastening, comprising a casing adapted to be seated in a floor, a screw movable through an opening in the top of the said casing and having a threaded shank portion adapted to move through an opening in the lower end of said casing, a shaft mounted to rotate in the casing and having its outer end provided with means for engagement by a turning tool, a gear-wheel on said shaft, meshing with the thread of the screw-shank portion, a ring-plate surrounding said screw and movable thereon, and lugs on said ring-plate adapted to pass through openings in the top of the casing, substantially as described.

3. A post-fastening, comprising a casing, a screw movable through an opening in the top of said casing and having a threaded shank portion, a shaft extended into the casing and having its outer end provided with means for engagement by a turning tool, a gear-wheel on said shaft, meshing with the thread on the shank portion of the screw, a beveled gear on said shaft, a beveled pinion engaging therewith, and means for rotating said beveled pinion from the outer side of the casing, substantially as described.

4. A post-fastening, comprising a casing, a screw movable through an opening in the top thereof, said screw having a threaded shank portion, a shaft in the casing, a gear-wheel on said shaft, engaging with the thread of the screw-shank portion, a beveled gear on said shaft, a beveled pinion engaging said beveled gear, and a shaft for said pinion extended outward through the side of the casing and provided with means for engagement by a turning tool, substantially as described.

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Witnesses:
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