

No. 809,177.

PATENTED JAN. 2, 1906.

P. L. E. DROLSHAGEN.

DOWEL.

APPLICATION FILED NOV. 25, 1904.

Fig: 1.

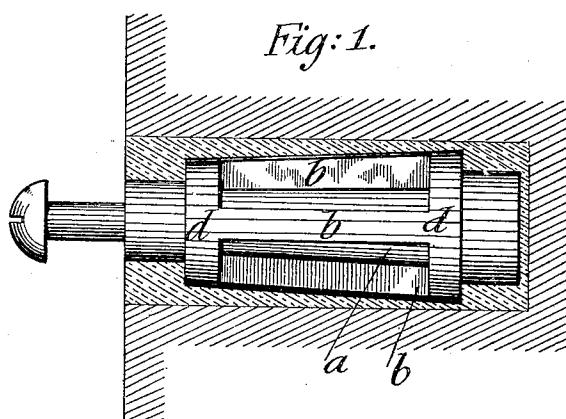


Fig: 2.

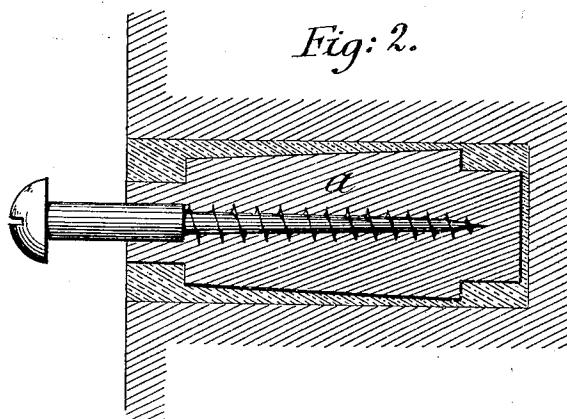


Fig: 3.

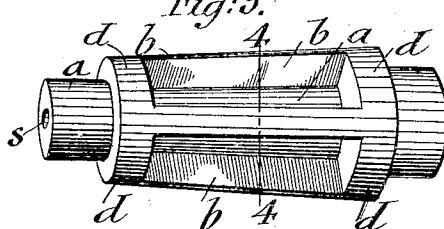


Fig: 4.

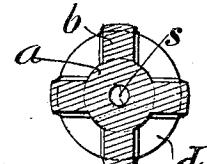


Fig: 5.

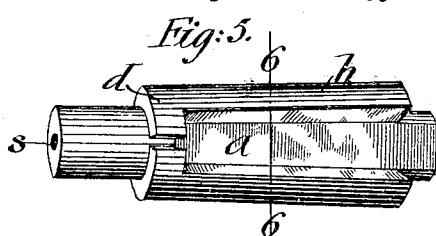
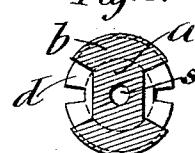


Fig: 6.



Witnesses

Henry J. Schubier.  
W. Stockwell

Inventor

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James Miles

# UNITED STATES PATENT OFFICE.

PAUL L. E. DROLSHAGEN, OF NEW YORK, N. Y.

## DOWEL.

No. 809,177.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed November 25, 1904. Serial No. 234,173.

To all whom it may concern:

Be it known that I, PAUL L. E. DROLSHAGEN, a citizen of the Empire of Germany, residing in New York, borough of Brooklyn, in the State of New York, have invented certain new and useful Improvements in Dowels, of which the following is a specification.

This invention relates to an improved dowel of that class which is intended to secure screws, hooks, knobs, insulators, and other electrical devices into brick or stone walls in a strong and reliable manner, so as to prevent the loosening or detaching of the parts; and for this purpose the invention consists in the novel features and combinations of parts, to be more particularly described hereinafter and finally recited in the claims.

In the accompanying drawings, illustrative of one embodiment of the invention, Figure 1 is a side elevation of my improved dowel, showing the same in position in a mortise of a wall, the wall portion and the cement surrounding the dowel being shown in section. Fig. 2 is a vertical longitudinal section of the dowel in the same position as in Fig. 1. Figs. 3 and 5 are perspective views of different modified constructions of the dowel; and Figs. 4 and 6 are vertical transverse sections respectively on lines 4-4, Fig. 3, and 6-6, Fig. 5.

Similar letters of reference indicate corresponding parts throughout the several views.

Referring to the drawings, *a* designates the body of my improved dowel, which may be either of conically-tapering or cylindrical shape. The body *a* is provided with exterior longitudinal ribs *b*, which are either made of the same taper as the body *a* or are inclined toward the axis of the body, as shown in Fig. 5. One or both ends of the longitudinal ribs may be connected with a circumferential transverse rib *d*, which may be recessed intermediately between the longitudinal ribs, as shown in Fig. 5. The dowel is preferably cast of some soft alloy, preferably an alloy of lead and antimony, so that it can be conveniently cast in one integral piece, and is provided at its smaller end with a central socket *s* for inserting the threaded shank of the screw, hook, or other device that is to be

supported by the dowel, the socket being formed in the dowel when the same is cast in the mold. As the metal employed is soft metal, the screw-shank can be readily screwed into the same, and is thus firmly maintained in position.

It is preferable to supply the dowel provided with the screw, hook, or other device which is to be supported thereby ready for use, so that it can be sold in hardware and house-furnishing stores.

When the dowel is to be applied to the outside or inside wall of a building, a mortise is first cut into the brick or stone wall of a size sufficient to receive the dowel. The mortise is then filled with plaster-of-paris in liquid state or other suitable plastic cement and the dowel then forced into the plaster-of-paris or other cement in the mortise, so that the same enters into the spaces between the longitudinal ribs of the same and around the body and transverse ribs of the dowel, the surplus cement being forced out at the front end of the mortise and removed by a scraper or other suitable tool. When the plaster-of-paris or other cement has set, the dowel is anchored in a reliable manner in the mortise-hole and is prevented from working loose even if subjected to considerable strain, owing to the fact that the circumferential transverse ribs prevent the longitudinal displacement of the dowel, while the longitudinal ribs effectually prevent the angular twisting or dislocation of the same. In this manner a very effective and reliable dowel connection for any article that is to be fastened into brick, stone, or plaster walls is provided, said dowel being not only useful for supporting curtain-poles or other decorations at the interior of the house, but also for signs and other articles which are attached to the outside walls of a building.

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

1. A dowel of substantially circular cross-section provided with transversely-extending ribs, and with ribs extending between the same.

2. A dowel comprising a conically-tapering body having a socket in the smaller end thereof.

3. A dowel comprising a conically-tapering body provided in proximity to each end with a transverse circumferential rib, and having longitudinally-disposed ribs connecting said transverse ribs.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

PAUL L. E. DROLSHAGEN.

Witnesses:

PAUL GOEPEL,  
HENRY J. SUHRBIER.