

No. 646,164.

Patented Mar. 27, 1900.

J. CATHREIN.  
WOODEN DOWEL.

(Application filed Aug. 5, 1899.)

(No Model.)

Fig. 3.

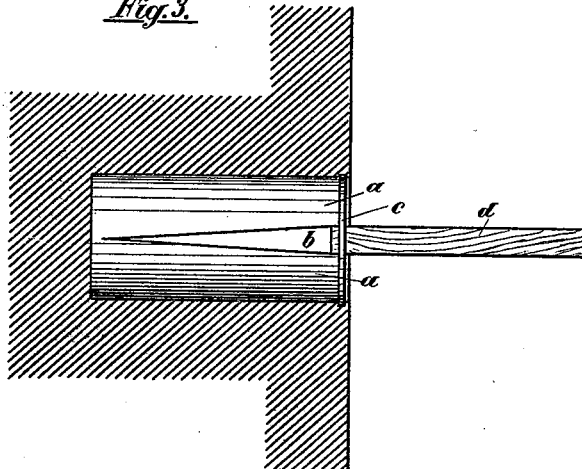


Fig. 1.

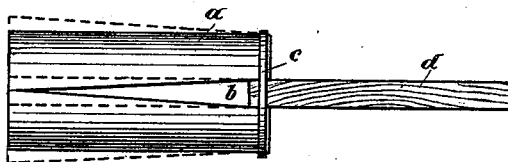


Fig. 2.

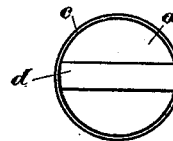
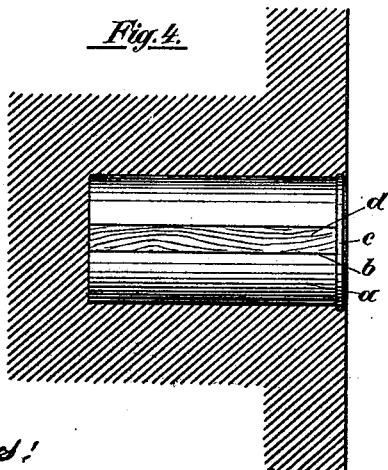


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## WOODEN DOWEL.

SPECIFICATION forming part of Letters Patent No. 646,164, dated March 27, 1900.

Application filed August 5, 1899. Serial No. 726,313. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEF CATHREIN, a citizen of the German Empire, residing at Tsarthorplate 6, Munich, Kingdom of Bavaria, Germany, have invented a certain new and useful Improvement in Wooden Dowels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The well-known method of plastering or cementing hooks, nails, and other objects into walls is not only troublesome, but it takes up much time, in addition to which it frequently produces stains on paper-hangings, and consequently the application of this method on inner walls is most undesirable.

The more simple way of fixing hooks, nails, &c., into walls as practiced hitherto—namely, by means of wooden dowels or wedges—is not sufficiently reliable in the case of hooks which have to resist heavy pulls or jerks, because their hold in brick walls without the aid of plaster-of-paris, &c., is never firm enough.

The object of this my invention is to do away with all the disadvantages inherent to the present fixing method and to create a wooden dowel of cheap and simple construction which when driven into a wall will stand with absolute certainty any amount of pulling or jerking without previous plastering.

In the accompanying drawings, Figure 1 represents a plan view, and Fig. 2 a front view. Figs. 3 and 4 respectively show the manner of adjusting and driving in the dowel.

As will be observed, this latter consists of a cylindrical or prismatic wooden body *a* and of a wedge *d* of the same form. The body *a* is split and has an incision *b*, which assumes an arrow shape toward its farther extremity and whose front aperture corresponds to the caliber of the wedge *d*. A stretching-ring *c* encompasses the front end of the wooden body *a*. When using the dowel, the wooden body *a*, with its closed end foremost, is inserted into the hole made in

the wall, as shown by Fig. 3. Thereupon the wedge *d* is driven into the wooden body *a*, with the result that the two halves of this latter are forced apart at their farther end and firmly squeezed into the said hole, Fig. 4, so that a loosening of the dowel is no longer possible, even in the case of a severe pull. The front part of the dowel is in no wise influenced by the wedge, owing to its being encompassed by the ring. This method permits inserting and driving dowels into walls without any injury to the latter.

The dowels may of course be made either of paper-pulp or other materials in place of wood.

I claim—

1. A dowel-pin having an axially-disposed slot that tapers from its outer extremity inwardly, a band encircling the dowel-pin near its outer extremity, and a wedge member for insertion in the said slot to cause the expansion of the inner extremity of the dowel-pin, substantially as and for the purpose set forth.

2. A cylindrical dowel-pin having an axially-disposed slot that tapers from its outer extremity inwardly, a band encircling the dowel-pin near its outer extremity, and a wedge member for insertion in the said slot to cause the expansion of the inner extremity of the dowel-pin, substantially as set forth.

3. A dowel-pin having an axially-disposed slot of wedge shape that extends from the outer extremity inwardly, a band encircling the dowel-pin near its outer extremity, and a wedge member for insertion in the said slot to cause the expansion of the inner extremity of the dowel-pin, said wedge member having a rectangular cross-section and parallel sides, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEF CATHREIN.

Witnesses:

HUGO ALFRED BOETHON,  
EMIL HENZEL.