(No Model.)

G. B. ADAMS

KNOB.

No. 434,650. Patented Aug. 19, 1890.

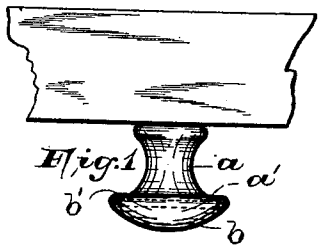


Fig. 1

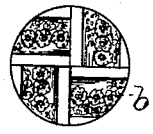


Fig. 3

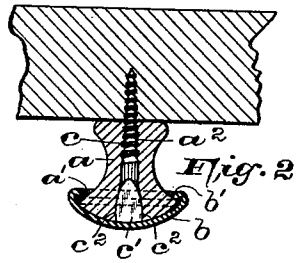


Fig. 2

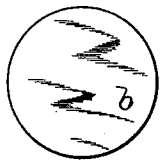


Fig. 4

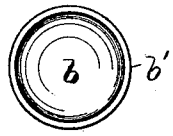


Fig. 5



Fig. 6

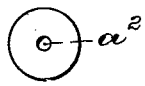


Fig. 7

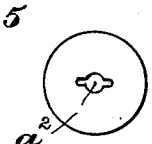


Fig. 8

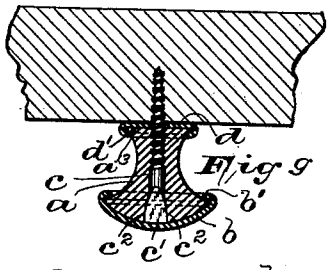


Fig. 9

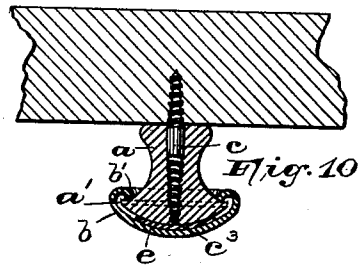


Fig. 10

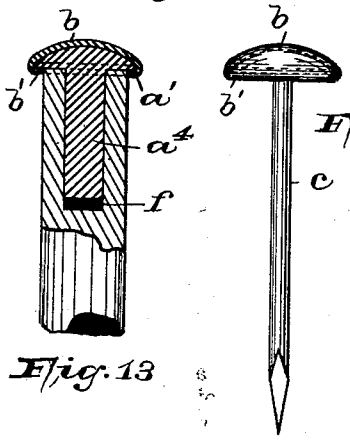


Fig. 13

Fig. 12

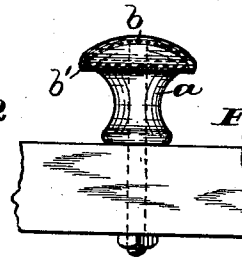


Fig. 11

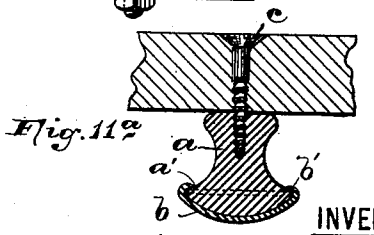


Fig. 11a

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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KNOB.

SPECIFICATION forming part of Letters Patent No. 434,650, dated August 19, 1890.

Application filed December 13, 1889. Serial No. 333,572. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. ADAMS, a citizen of the United States, residing at Irvington, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Knobs for Furniture and like Articles; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in knobs intended for drawer-pulls, sash-lifts, picture-knobs, &c.; and the object of the invention is to provide a simple, cheap, and durable knob for such purposes which is designed to be secured by means of a screw or bolt to the piece of furniture or other similar article.

The herein-described invention consists of a solid knob, of wood or other analogous material, provided with means for attaching the same to an article, and is provided on one or both ends with an ornamental shell having an overlapping edge or shoulder adapted to be turned down over the edge of the body portion of the knob by means of a punch and die, whereby said shell is firmly and securely attached to said body portion. It is obvious that in manufacturing an article of such general and universal use as a knob for the purposes mentioned in the above strength of construction and practicability are very important elements, inasmuch as the parts in knobs as heretofore made and put together are not of a satisfactory construction to prevent the wooden body portion from splitting when the knob is screwed into the wood of a drawer or other article and where great strain is brought to bear upon the parts. In the present form of knob the body portion is provided with a hole therein through its longitudinal axis, in which is arranged a screw or bolt, and which is also provided with a shell formed to cause the outer edge of the same to project inwardly and to overlap the end of the knob, and which is tightly closed down upon the same, thereby preventing the possibility of the body of the knob splitting, and said shell or face-plate thereby entirely covering the end of the wooden knob or body portion and producing a knob having a solid metal face provided with any desirable ornamental design.

The invention further consists in a novel arrangement of the screw in the knob, whereby the same cannot turn while the knob is being attached to a drawer, window-sash, blind, or other article.

In the accompanying sheet of drawings is illustrated the nature of my improvement, and in the several views therein Figures 1 and 2 are respectively a side elevation and a side elevation taken centrally through said elevation of a knob provided with the metal shell or face-plate turned down directly behind and over the corresponding edges of the end of the same to prevent the splitting thereof when driven into the wood. Fig. 3 is a top view of the end of the knob provided with the shell having any ornamental design wrought thereon. Fig. 4 is a blank from which the shell is struck up. Fig. 5 represents a top view of said shell; and Fig. 6 is a vertical section of the same, showing the peripheral edge thereof bent upwardly ready for insertion upon the knob, and before the said edge is closed down upon and over the surrounding edge of either one of the ends of the knob. Fig. 7 is a view of the under side of the body portion of the knob, and Fig. 8 represents the upper side of the same with the shell removed. Fig. 9 is a knob represented in horizontal section provided with overlapping metal shells on both ends, and Fig. 10 is a similar view of the knob provided with a double-pointed screw having a thread on each end thereon. Fig. 11 is a sectional view showing the knob secured by means of an ordinary bolt and nut, and Fig. 11ª is a similar view illustrating still another method of securing the knob. Fig. 12 represents a picture-nail, the head of which has secured thereon my shell by means of the overlapping edge; and Fig. 13 is a sectional view of my improved knob provided with a shank for securing the same to an umbrella, cane, or other handle.

Similar letters of reference are employed to indicate corresponding parts in each of the several views.

The improvement illustrated in the above-

described views consists of a solid body portion or knob proper a, of wood or other analogous material, which is turned, as shown, being of smaller diameter in the middle than at the ends, and which is provided, as illustrated in Figs. 2, 9, 10, and 13, with a sharp edge or ledge a' around its periphery, to which is secured the shell b by means of the inwardly-turned edge or shoulder b', which overlaps said surrounding edge or shoulder a', and to which said shell is firmly attached by means of a punch and die. Said body portion a is previously supplied with a round hole or perforation a^2, drilled through said body portion in the direction of its length, in which is driven by means of a blow a screw or bolt c, provided with a flattened end c', the ears c^2 of which embed themselves on the opposite sides of the hole or perforation a^2 at one end into the body portion a, thus forming a hole similar to that illustrated in Fig. 8 when the screw or bolt has been removed. The purpose of this flattened part of the screw c is to prevent the turning of the latter in the hole a^2 when the knob is being screwed or driven into the wood.

As is clearly shown in Figs. 4, 5, and 6, the shell b is struck up from a metal blank and formed, as represented more especially in Figs. 5 and 6, to form an upwardly-projecting flange or rim around the same, which, when said shell has been placed upon the body portion of the knob, is forced inwardly and upwardly, whereby said edge b' laps over the large end of the knob, and thereby the said shell becomes firmly attached to said knob and forms a round edge or bead surrounding the upper edge of the knob proper. Said shell b, as will be seen from Fig. 2, prevents the screw c from being forced out of its perforation in the knob when the same is driven into the wood of the article.

By the construction shown in the figures a knob is secured provided with a hole into which an ordinary screw, one of the ends of which is pointed and threaded, while the other is flattened to prevent the turning of the same, may be arranged, and the end of the knob is provided with the overlapping shell, from which it is apparent that a construction has been obtained which is a very strong one, the end of the knob being firmly held by the overlapping edges of the shell employed, substantially as indicated, thus greatly increasing the strength and relieving the strain upon the body portion, and thereby preventing any possibility of the parts splitting or becoming loose when a great strain is applied to the screw or bolt.

As illustrated in Figs. 1 and 2, the body portion a is provided with but one overlapping shell b on its upper end; but said knob may also be provided with a similar shell d on the opposite end, as shown in Fig. 9. In that case the shell d is provided with the overlapping edges d', which clamp the surrounding edge a^3 of the body portion, and is also provided with a centrally-arranged perforation or hole a^2, through which extends the screw or bolt c.

In Fig. 10 is shown still another form of construction in which the screw c is provided with points and threads on opposite ends of said screw. To prevent the pointed end c^3 of the screw in this construction just mentioned from being forced through the shell b when the knob is being driven fast to the article in case that the shell should not be of sufficient strength, I contemplate using an additional plate e, which is arranged between said shell b and the body portion a, as shown, and against which the point c^3 of the screw abuts, and is thus prevented from being accidentally forced through the shell b.

In Fig. 11 is shown a form of construction similar in all respects to that illustrated in Figs. 1 and 2; but instead of employing a wood-screw a bolt provided with a head thereon is secured within the body portion a and arranged in a perforation in the wood, to which the same is secured by a nut, or the body portion may be left entirely solid and an ordinary wood-screw driven into the same through the material of the drawer and into the back of the knob.

In Fig. 12 is illustrated a knob having attached thereto a shell in the manner as described in the above, and which is provided with a long pin, whereby the same may be used as a picture-nail. Said pin may be screwed into the wooden knob in the ordinary manner. In lieu of providing the knob with a screw or bolt, I may provide the same with a shank a^4, formed integrally therewith, which can readily be inserted into a perforation f in the end of an umbrella, cane, or other handle. It will be seen that by the construction shown and described in the above an efficient and inexpensive article is produced, thereby making a very neat and ornamental knob. Another great advantage is attained by this construction in that the surrounding edge of the shell being turned inwardly and upwardly behind the large end of the knob, said edge becomes round in cross-section, forming a bead, as is illustrated in the drawings, thereby preventing the possibility of cutting the fingers by means of the sharp and protruding edge of the shell on knobs as heretofore made, and the window-sash may be raised or a drawer or door opened with greater ease.

Instead of securing the shell b to the knob by means of a punch and die, as has been stated, the shell may be spun upon the knob; but the former is preferred to the latter, as the shell can be attached with greater ease and quicker and also much cheaper.

Having thus described my invention, what I claim is—

1. A knob composed of a solid body portion, a shell arranged on the upper end of said body portion entirely covering the same and secured thereon by means of an inwardly-turned

and overlapping edge or shoulder, forming a bead surrounding the edge of the knob, and means for securing said body portion to a drawer, door, or other article, as and for the purposes set forth.

2. A knob composed of a solid body portion having a perforation therein, a shell or face-plate arranged on said body portion, entirely covering one end of the same and secured to the surrounding edges of said end of said body portion, which forms a shoulder or ledge directly behind said end by means of an inwardly-turned and overlapping edge or shoulder on said shell, and means arranged in said body portion for attaching the same to a drawer, door, or other article, as set forth.

3. A knob composed of a solid body portion having an unobstructed perforation therein, a bolt or screw in said perforation provided with means thereon engaging with the solid body portion to prevent the same from turning, and shells arranged on either end of said body portion, being attached thereto directly behind the ends by means of an overlapping edge or shoulder struck up in the shell, as and for the purposes set forth.

4. A knob consisting of a solid body portion having an unobstructed perforation therein, a screw or bolt provided with a flattened end arranged in said perforation, and a shell arranged on the upper end of the knob and entirely covering the same and secured to the surrounding edge a' by means of an overlapping edge or shoulder b', as set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 12th day of December, 1889.

GEORGE B. ADAMS.

Witnesses:
FREDK. C. FRAENTZEL,
WM. H. CAMFIELD.