(No Model.)

J. D. BRAINARD.

BUTTON.

No. 458,094. Patented Aug. 18, 1891.

Fig. 1

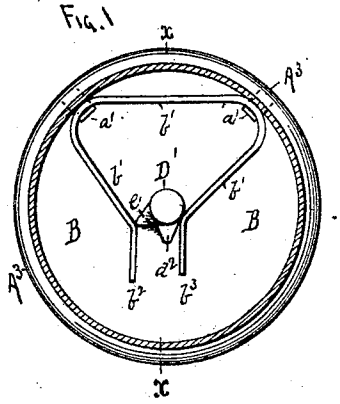


Fig. 2

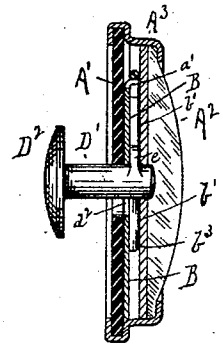


Fig. 3

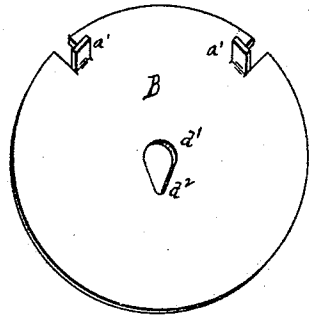
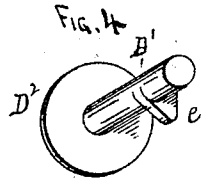


Fig. 4



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UNITED STATES PATENT OFFICE.

JULIUS D. BRAINARD, OF ST. PAUL, MINNESOTA.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 458,094, dated August 18, 1891.

Application filed April 19, 1890. Serial No. 348,723. (No model.)

To all whom it may concern:

Be it known that I, JULIUS D. BRAINARD, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Detachable Buttons, of which the following is a specification.

This invention relates to detachable buttons; and it consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claim.

In the drawings, Figure 1 is a view of a button with the outer covering in section, showing the internal construction. Fig. 2 is a cross-sectional view on the line X X of Fig. 1. Fig. 3 is a perspective view of the spring-supporting plate removed. Fig. 4 is a perspective view of the detachable shank removed.

The covering and body of the button may be of any suitable construction or material that will permit of the insertion of the novel devices for supporting the detachable shank; but for the purpose of illustration I have shown it composed of the back plate A′ and front plate A^2, connected by a rim A^3 rolled around their edges, which is an ordinary construction.

Inserted into the interior of the button is a plate or disk B, having two bent-up portions a', around which a bent-wire spring b' is held, the free ends b^2 b^3 of the spring resting on either side of a central opening d', as shown in Fig. 1. This opening d' is circular in outline, except on one side, where a recess d^2 is formed in it, this configuration also being present in the disk B.

D′ represents the detachable shank having a head D^2, the shank corresponding to the opening d', and with a lug e on the shank corresponding to the cavity d^2, so that the shank may be inserted freely through the openings both in the back A′ and the disk B. The recess d^2 will be on the same side of the opening d' as the ends $b^2 b^3$ of the spring b', the spring and its end offering no resistance to the insertion of the shank. When, however, the shank is inserted and turned halfway around, the lug e will push the end b^2 or b^3 to one side, as shown in Fig. 1, which represents the shank being inserted and turned, so as to push the end b^2 to one side, until it passes its influence, when the reaction of the spring will cause the end to return to its former position. The shank will then be removable only by being turned until the lug e is opposite the recess d^2; but this will necessitate the forcing of one of the ends b^2 or b^3 to one side again, an act which will never occur by using the button, as the revolving force necessary to accomplish this is never imparted to it while in use.

The invention is applicable to any form or style of button, either of the most common kind used on men's clothing, the finest kind of sleeve and collar buttons, or upon fancy buttons for ladies' use.

Having thus described my invention, what I claim as new is—

In a detachable button, the outer shell A′ A^2, having the slotted opening d' d^2 through its rear face and with the inner disk B supported therein, bent-up portions a' on the edge of said inner disk, spring b', resting upon said disk and supported thereon by said bent-up portions, and with its ends b^2 b^3 bent inward and lying alongside said slotted opening, in combination with the shank D, having the projection e, and adapted to be inserted into said slotted opening, and when turned to compress said spring and be retained in place thereby, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JULIUS D. BRAINARD.

Witnesses:

C. N. WOODWARD,

HARRY H. DEAN.