W. T. FARRE.
Buttons.

No. 200,824. Patented March 5, 1878.

Fig 1

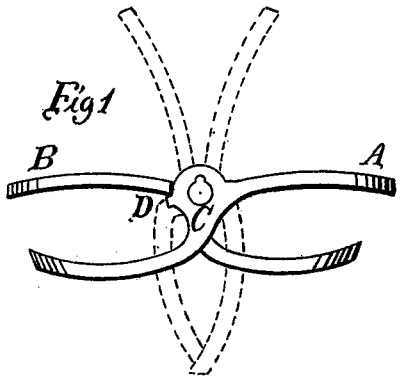


Fig 2

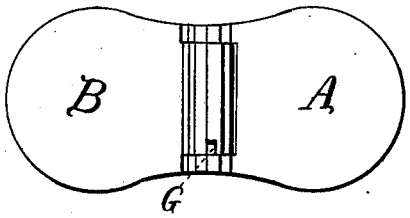
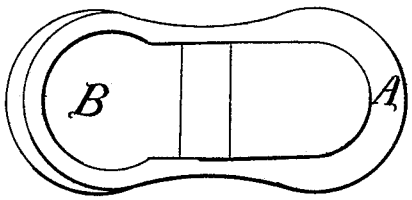


Fig 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM T. FARRE, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN BUTTONS.

Specification forming part of Letters Patent No. **200,824**, dated March 5, 1878; application filed May 5, 1877.

To all whom it may concern:

Be it known that I, WILLIAM THEODOR FARRE, of the city of Providence, State of Rhode Island, have invented an Improvement in Clasps, of which the following is a specification:

The object of my invention is to provide a serviceable clasp for the fastening of sleeves, cuffs, collars, and other articles of linen or clothing, as well as for mere ornamental purposes.

The clasp consists of two bent plates, A and B, side views of which are shown in Figure 1.

The plate B is provided with a tube or barrel in its center, for the reception of a coiled spring. This barrel, as well as the lower part of B, is as much narrower than the width of the clasp as is required to leave sufficient strength in the skeleton part of the plate A. The middle and lower part of the plate A is made skeleton in form to admit the plate B, which, after being hinged, can move freely as far as indicated by the dotted lines in Fig. 1, when it is prevented from moving farther by the point of part B being too long to pass.

For the purpose of the hinge, eyes to receive the joint-pin are provided on each side of the skeleton part of A, as shown. These eyes are reamed very slightly conical, and the eye on the largest side is provided with a key-slot.

The joint-pin may be made of hollow wire, half the diameter of the inside of the barrel in part B. The joint-pin is grooved about one-fifth of its length in either end. In one of these grooves the key is soldered, and the other groove serves to catch the coiled spring. The key, as well as the key-slot, ought to be tapered, so as to be thicker outward, to save riveting on that end.

The spring is to be spun as a left screw-thread, close cut, one-half turn less than will fill the barrel, the one catching end bent inward and the other outward. It is best made of steel wire, hardened and tempered, or of very hard gold wire. The dimension of the wire may, if exact work is made, be twenty-two hundredths of the inside diameter of the barrel; but, if not exact, something less.

The upper leaves of the parts A and B, which form or serve as thumb-pieces, are not confined in outline or ornament in other respects than as regards reasonable size, and so as not to prevent the clasp from being opened, in the form which the dotted lines in Fig. 1 indicate.

The hinge is in the line of the lower surface of the thumb-pieces; or, if the material of which the clasp is made is heavy, or the ornamentation requires it, a little above that line. The spring forms the bearing for the joint-pin in part B.

The stopper D is rendered necessary, as without it, when the clasp is not in use, the tips of the thumb-pieces and the tips of the fastening-jaws would touch each other, and thereby occasion unnecessary trouble in opening the clasp for insertion.

The slot in the edge of the barrel in part B, which is to receive one end of the coiled spring, may be cut in any convenient place in the circle, and so may the key-slot in the eye of part A; but care must be taken that the spring, when inserted, has good tension after the clasp is closed.

To put the clasp together, a reamer is put hard into the hollow joint-pin, the spring is put in position in the barrel in part B, and part B in position in part A, the joint-pin is inserted, the reamer withdrawn, and the opposite end of the joint-pin neatly riveted. If the key on the joint-pin is formed ten or fifteen degrees out of parallel with the joint-pin in the direction of a right screw-thread, and the key-slot in part A is formed to correspond, no riveting is necessary.

To insert this clasp, the button-holes are made to coincide, the clasp is seized over the end of the thumb-pieces between the thumb and the middle finger, and the hinge touched with the forefinger, when it will assume the form indicated by the dotted lines in Fig. 1. The tips of the fastening-jaws are then inserted through the button-holes and the clasp released.

If the button-holes are large enough for the free motion of the clasp, it will spring into place and make the attachment; but, if the button-holes are not large enough, it must be pressed in and closed simultaneously. In with-

drawing, it must be opened and withdrawn simultaneously.

I claim as my invention—

The clasp consisting of the skeleton bent plate A and the solid bent plate B, the latter provided with a barrel or tube to receive a coiled spring and joint-pin, and the whole constructed and operating substantially as and for the purposes specified.

W. T. FARRE.

Witnesses:
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