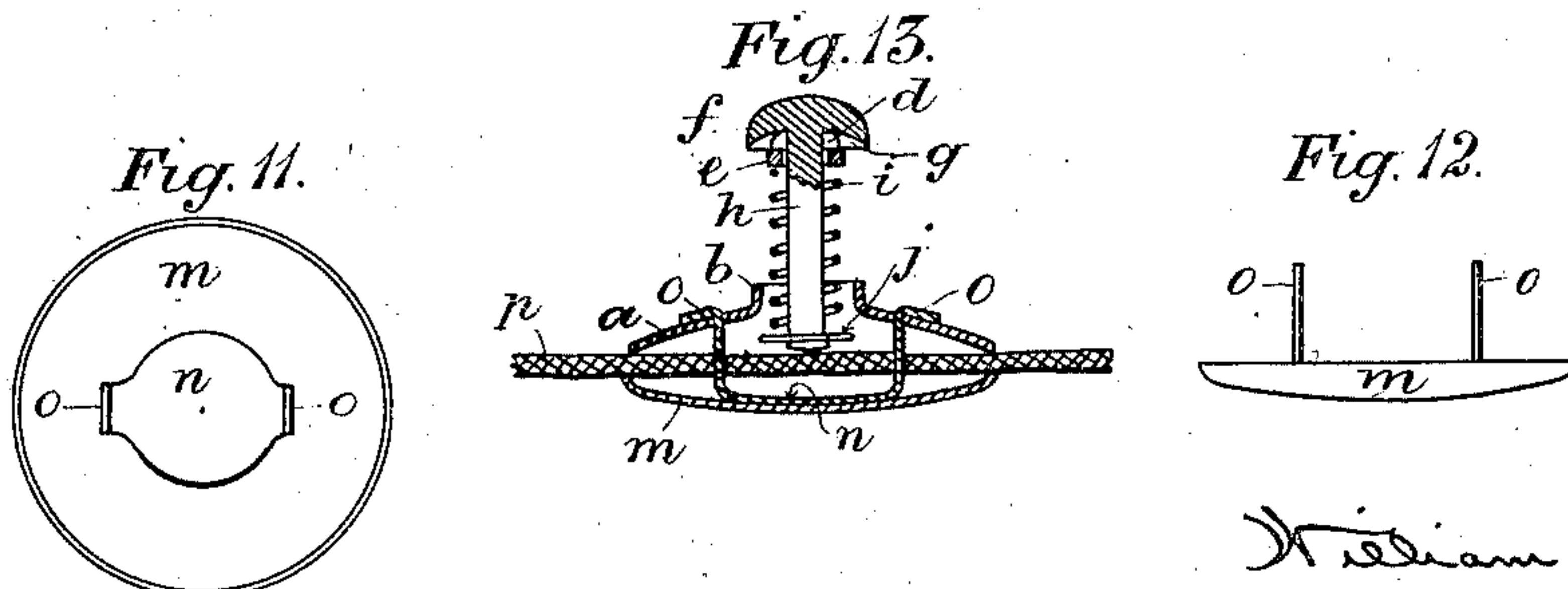
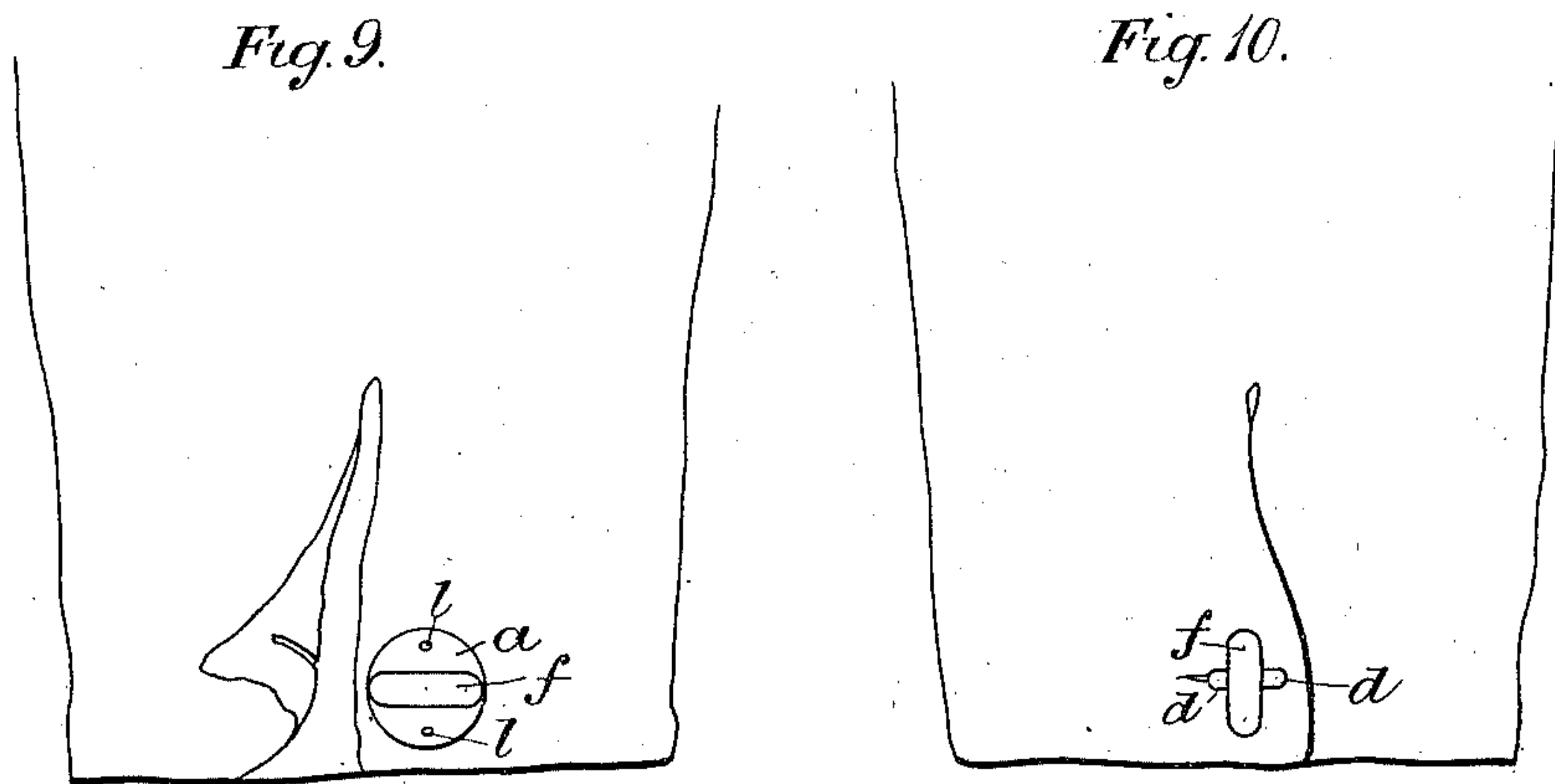
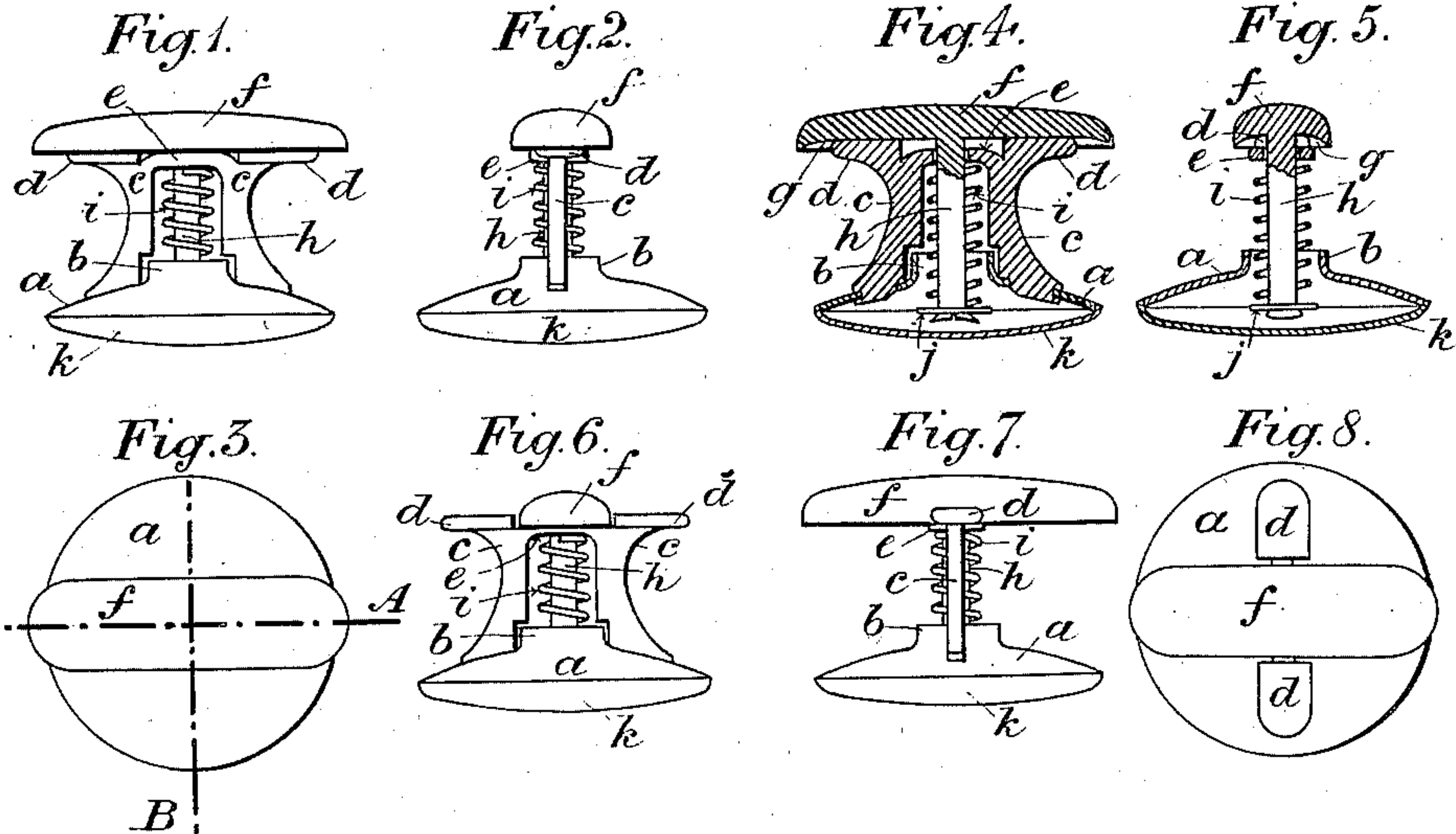


(No Model.)

W. WEST.
SOLITAIRE, BUTTON, &c.

No. 604,815.

Patented May 31, 1898.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM WEST, OF ASTON, ENGLAND, ASSIGNOR OF TWO-THIRDS TO
RICHARD POORE, OF LONDON, ENGLAND.

SOLITAIRE, BUTTON, &c.

SPECIFICATION forming part of Letters Patent No. 604,815, dated May 31, 1898.

Application filed March 8, 1898. Serial No. 673,070. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WEST, a subject of the Queen of Great Britain, residing at Aston, in the county of Warwick, England, have invented certain new and useful improvements in solitaires, buttons, and analogous appliances for fastening articles of wearing-apparel, purses, bags, and other articles, of which the following is a specification.

This invention relates to solitaires, buttons, and analogous appliances for fastening articles of wearing-apparel, purses, bags, and other articles; and the said invention consists in the improvements in construction of such appliances illustrated in the accompanying drawings and hereinafter described with reference thereto.

Figures 1 and 2 of the said drawings are side views, taken at right angles to each other, of a solitaire constructed according to this invention. Fig. 3 is a face view of the same; and Figs. 4 and 5 are sections taken, respectively, on the lines A and B, Fig. 3, the parts of the solitaire being represented in all the said figures in such relative positions as to admit of ready engagement thereof with a buttonhole. Figs. 6, 7, and 8 are views of the solitaire corresponding to those shown in Figs. 1, 2, and 3, but with the parts in the relative positions necessary for preventing disengagement of the solitaire from a buttonhole and for fastening an article having the solitaire applied thereto. Figs. 9 and 10 represent portions of gloves having a fastening appliance constructed according to this invention applied thereto. Figs. 11, 12, and 13 represent an alternative means for securing the fastening appliance to articles—such as gloves, boots, purses, and other articles—to which the said appliance is required to be connected permanently or otherwise than by engaging it in a buttonhole or slot.

The same letters of reference indicate the same parts in all the figures of the drawings.

The said appliance as illustrated in Figs. 1 to 8 is composed, essentially, of parts formed and combined as hereinafter described. One of the said parts consists of a cupped disk or button-shaped shell *a*, having a central orifice surrounded by a flange *b*, and having rigidly affixed to it a frame consisting of standards

c c, with enlarged ends or heads *d d*, which standards are connected together near their head ends by a bar or bridge *e*, having a hole formed in it in line with the center of the orifice of the disk *a*. Another of the said parts consists of a bar *f*, having in one of its faces a trough-shaped hollow *g* and having a circular stem *h* affixed to or formed in one with it and projecting at right angles from its troughed face. These two parts are engaged together, as illustrated in the drawings, which shows that the stem *h* of the bar *f* is engaged in the hole in the bar or bridge *e*, connecting the standards *c c*, and projects centrally through the orifice of the disk *a*. Another of the parts of the appliance consists of a coiled spring *i*, which surrounds the part of the stem *h* projecting beyond the bar or bridge *e*. The remaining part of the appliance consists of a washer *j*, which surrounds the stem *h* near its free end and is retained in place thereon by enlargement of that end of the said stem. The office of the spring *i* being to keep the bar *f* pressed on the head part of the frame *c d e*, it is necessary that the said washer *j* be secured at such a part of the stem *h* that the said spring *i* will be in compression between the bar or bridge *e* and the said washer *j*.

The action of the parts of the said appliance is as follows: The part *f h* is capable of being turned in the hole in the bar or bridge *e* of the frame *c d e*, slight resistance to its turning being produced by pressure of the under side of the bar *f* on the heads *d d* of the standards *c c* consequent on the compressed state of the spring *i*. When the said bar *f* is turned so that it lies lengthwise on the said heads *d d*, as illustrated in Figs. 1 to 5, the hollow *g* of the said bar *f* is caused to engage with the said heads *d d* by the action of the spring *i*, increased resistance to the turning of the said bar being consequent on the said engagement. When the bar *f* is turned so that it is at right angles with the said heads *d d*, it engages between them and is then held in contact with the bridge *e* of the frame *c d e*, as illustrated in Figs. 6, 7, and 8, still greater resistance to turning of the said bar being produced by the said engagement.

The relative positions of the parts necessary to admit of insertion of the fastening appliance in a buttonhole or slit is that illustrated in Figs. 1 to 5, and the relative positions of the parts necessary for securing an article to which the fastening appliance is connected or attached is that illustrated in Figs. 6, 7, and 8.

The construction, arrangement, and action of the parts of the fastening appliance hereinbefore described are the same whatever be the nature of the article to which it is applied; but where it is to be used as a stud or button or solitaire a second cupped disk (marked *k* in Figs. 1 to 8) is secured at its periphery to the periphery of the cupped disk *a*.

Where the appliance is to be used as a fastening for gloves, boots, gaiters, bags, purses, and the like, holes are formed in the disk *a*, as shown at *ll* in Fig. 9, to admit of connection of the appliance to such articles by sewing or riveting; or the connection of the fastening appliance to such articles may be effected by the means illustrated in Figs. 11 and 12, which consists of a cupped disk *m*, to the face of the hollow side of which is soldered a piece of metal *n*, provided with tongues *oo*. To secure the fastening appliance to an article by this means, slits are formed in the disk *a* in place of the holes marked *ll* in Fig. 9, and corresponding slits are formed in the article to which the fastener is to be attached, and its attachment is effected by placing the hollow side of the disk *a* in contact with one face of the article and passing the tongues *oo* through the slits in the said article and through those in the disk *a* and clenching them over the latter, as illustrated in Fig. 13, in which the fastening appliance is illustrated in section secured to a piece of fabric, (marked *p*.)

The mode of manipulating the said appliance and the action of the parts thereof are as follows: Where the purpose for which the said appliance is to be used is that of a solitaire or cuff-button, it is engaged with the buttonholes of the cuff or other article to be fastened by passing the bar *f* through the said buttonholes, the position of the said bar relatively to the frame *c e d* at the time of in-

serting the appliance in the buttonholes being that illustrated in Figs. 1 to 5. After engagement of the appliance thus with the buttonholes the said bar *f* is turned to the position illustrated in Figs. 6, 7, and 8, thus securing the said article.

In the case of a glove or other article to which the fastener is applied by affixing the part *a* thereto the fastening of the article is effected by passing the buttonhole or slit in the part of the article to be secured over the bar *f*, which is then turned, as hereinbefore described, to the position illustrated in Figs. 6, 7, 8, and 10 in order to secure the article.

I am aware that certain constructions of fastening appliances have been proposed wherein one part is turned on or within another to produce their engagement in the fastening position, but the use of such constructions is attended by objections not attending use of the appliance hereinbefore described, the objections referred to being obviated by the particular construction and arrangement of parts hereinbefore described and illustrated in the accompanying drawings.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described button or fastening appliance, comprising the cupped disk *a* provided with a central aperture surrounded by the annular flange *b*, a rigid frame secured to one face of said disk and composed of standards *c c* provided with laterally-projecting heads *d d* and a centrally-perforated connecting-bridge *e* near said heads, the perforation in said bridge being in line with the central aperture of the disk, the bar *f* having a trough-shaped under face adapted to engage on the heads of the standards *c c* and provided with a stem *h* that is axially and longitudinally movable in the perforations of the said bridge and disk, a washer *j* secured on said stem beyond where it is passed through the disk-aperture, and a coiled spring *i* surrounding said stem between the bridge *e* and washer *j* and having one end housed in the annular flange *b*, substantially as specified.

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Witnesses:

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STEPHEN S. ANSUM.