(No Model.) 2 Sheets—Sheet 1.

K. DIETERICH.

BUTTON.

No. 417,909. Patented Dec. 24, 1889.

Fig. 1a

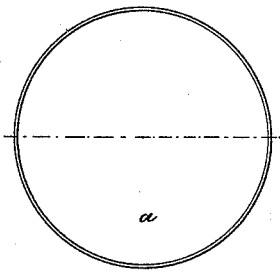


Fig. 3a

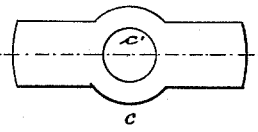


Fig. 1b

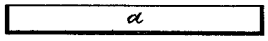


Fig. 3b

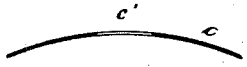


Fig. 2a

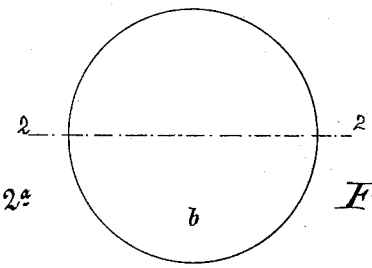


Fig. 4a

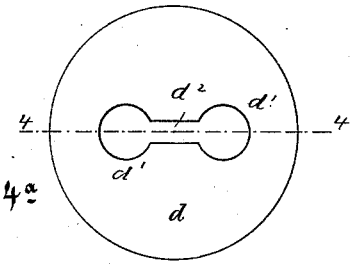


Fig. 2b

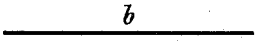
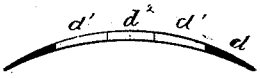


Fig. 4b



Witnesses.
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his Attorneys

(No Model.) 2 Sheets—Sheet 2.

K. DIETERICH.

BUTTON.

No. 417,909. Patented Dec. 24, 1889.

Fig. 5a

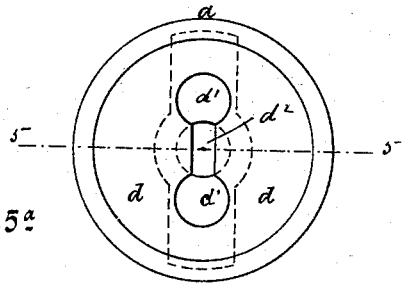


Fig. 6

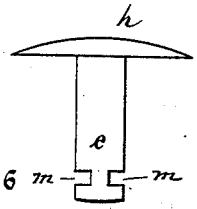


Fig. 5b

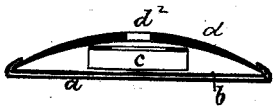


Fig. 7

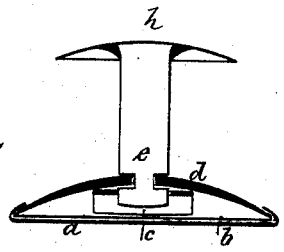


Fig. 8

Fig. 9a

Fig. 9b

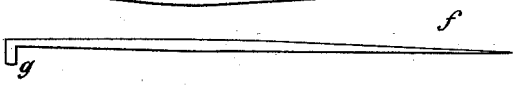
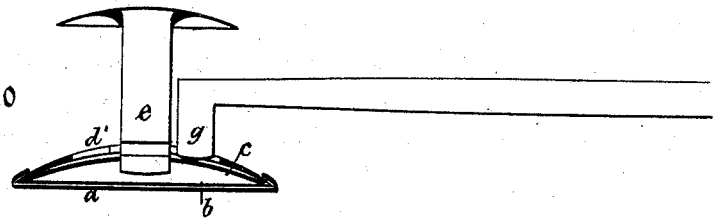


Fig. 10



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Inventor:

Karl Dieterich.

per Goepel & Kaegener

his Attorneys

UNITED STATES PATENT OFFICE.

KARL DIETERICH, OF MUNICH, BAVARIA, GERMANY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 417,909, dated December 24, 1889.

Application filed July 26, 1889. Serial No. 318,715. (No model.)

To all whom it may concern:

Be it known that I, KARL DIETERICH, mechanician, residing at Munich, in the Kingdom of Bavaria, German Empire, a citizen of Germany, have invented a new and useful Improvement in Buttons, of which the following is a specification.

This invention relates to separable buttons; and the object of my invention is to provide a button of this kind which is simple in construction, strong and durable, and the parts of which can be united or separated very easily and rapidly, thus permitting of using the button any number of times.

The invention consists in the construction and combination of parts and details, as will be fully described hereinafter, and finally pointed out in the claim.

In the accompanying drawings, Figure 1^a is a top view of the body-blank of the button. Fig. 1^b is a vertical transverse sectional view of the same on line 1 1, Fig. 1^a. Fig. 2^a is a top view of the filling-piece for the body-blank. Fig. 2^b is a cross-sectional view of the same on line 2 2, Fig. 2^a. Fig. 3^a is a top view of the bent spring. Fig. 3^b is a vertical longitudinal sectional view of the same on line 3 3, Fig. 3^a. Fig. 4^a is a top view of the slotted and apertured top plate of the button-body. Fig. 4^b is a longitudinal vertical sectional view of the same on line 4 4, Fig. 4^a. Fig. 5^a is a top view of the bottom section or body of the button. Fig. 5^b is a vertical transverse sectional view of the same on line 5 5, Fig. 5^a. Fig. 6 is a side view of the upper section of the button. Fig. 7 is a vertical transverse sectional view of a complete button. Fig. 8 is a perspective view of the button. Fig. 9^a is a top view, and Fig. 9^b a side view, of the combined perforating-awl and unlocking device; and Fig. 10 is a vertical transverse sectional view of the button, showing the manner in which the unlocking device is used.

Similar letters of reference indicate corresponding parts.

The button is composed of two main parts—the bottom section and the top section—the top section being provided with a head. The bottom section is composed of a cup-shaped plate *a*, having an upwardly-projecting rim, into which cup-shaped plate the circular filling-plate *b* is placed, and on said filling-plate *b* a curved spring-strip *e* is placed, which is provided with a central aperture *e'*. Over the spring *c* the top plate *d* is placed, which is curved and provided with two apertures *b' b'*, united by a slot b^2. The rim of the plate *a* is then turned or curved over the top of the plate *d*, for the purpose of holding the plate *a*, filling-plate *b*, spring *c*, and the top plate *d* together. The stem *a* is provided at one end with a plate or head *h* and at the opposite end with two opposite parallel grooves *m m*.

f represents an awl, which is used to perforate the fabric or material to which the button is to be attached, and said awl is provided at one end with a lug *g*, that is used for unlocking the button. The post or stem *e* is passed through the aperture made in the fabric or other material by means of the awl *f*, and then the free end of the stem *e* is passed into one of the apertures *d'* of the plate *d* and moved through the slot d^2 until it arrives at the center of the same. The free end of the stem presses down the spring *c* while sliding on the same; but when said free end of the stem arrives at the center of the spring *c* the said spring *c* snaps upward and the end of the stem *e* passes into the aperture *c'* of the spring. The edges of the slot d^2 are now within the opposite grooves in and hold the stem on the plate *d*. As the lower end of the stem is in the aperture *c'* of the spring *c*, it cannot be moved in the direction of the slot *d*, and thus the stem and the body-section of the button are securely united.

When it is desired to detach the button, the lug *g* on the awl *f* is passed through one of the holes *d'*, and by means of it the spring *c* is pressed down sufficiently to release the free end of the stem *e*, when said stem can be moved lengthwise until it arrives at one of the apertures *d'*, and can then be withdrawn.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a separable button, the combination, with a button-body having a back provided with

two apertures connected by a slot, of a stem provided at one end with a disk and at the opposite end with two opposite notches, forming a head above the notches, and a spring-plate within the hollow body and provided with an aperture adapted to engage the head on the stem, substantially as set forth.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

KARL DIETERICH.

Witnesses:
EMIL HENZEL,
EUGEN JUGEL.