

No. 759,405.

PATENTED MAY 10, 1904.

E. THIELEMANN.
SPRING STUD.

APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

Fig. 1.

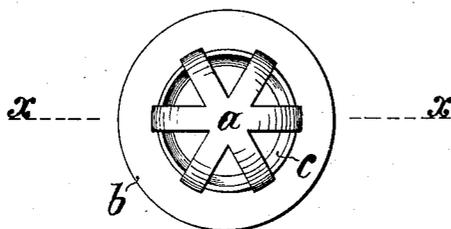


Fig. 2.

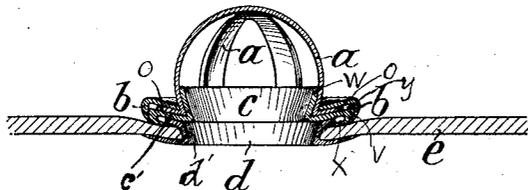
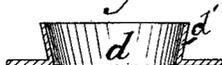


Fig. 3.



Witnesses:

James C. Babcock
George M. Anderson

Inventor
Ernst Thielemann
by
Wm H. Babcock
Attorney

UNITED STATES PATENT OFFICE.

ERNST THIELEMANN, OF BERLIN, GERMANY.

SPRING-STUD.

SPECIFICATION forming part of Letters Patent No. 759,405, dated May 10, 1904.

Application filed September 8, 1903. Serial No. 172,301. (No model.)

To all whom it may concern:

Be it known that I, ERNST THIELEMANN, foreman, a subject of the King of Prussia, residing at Nos. 27 to 29 Quitzowstrasse, in the city of Berlin, Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Spring-Studs, of which the following is a specification.

This invention relates to spring-studs of dome form fastened to the fabric by an eyelet; and it consists in the construction and combination of parts hereinafter more particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a plan view of a stud embodying my invention; Fig. 2, a section on the line $x-x$ of Fig. 1, showing also a part of the fabric; and Fig. 3 a similar section in detail of the fastening-eyelet before it has been applied.

The resilient head or dome of the stud is composed of resilient arms or slats radiating from their common center at the top and arching down to the level of the fabric, where they are bent out almost at a right angle, forming projecting ends o , which are held between two rings b and c . The outer ring b fits at its inner edge against the body of the dome or head a , and its outer part c' overlaps and is bent around under the ends o , forming a hook-shaped flange v in contact with the fabric. The inner ring c has a raised wall w , fitting the interior of the lower part of the dome, and an outer flange x , bent downward and inward like flange v and externally in contact with the latter. Just beyond the ends o and between the approximately horizontal part of ring b and the similar part c' of ring c is an annular space or recess y , which receives the ends o of the slats composing dome a . The raised annular wall d' of eyelet d when bent over fits between the flange x and the horizontal part c' of ring c . It is also in contact with the upper side of the fabric close to the hole through the same and with the edge of the fabric bordering the said hole, while the horizontal lower part of the eyelet fits against the under side of the fabric around the said hole. The said vertical and horizontal parts of the eyelet are compressed on the said fabric and flange x , as shown in Fig. 2. In setting

the stud the upper part of the eyelet is first passed up through the hole in the fabric and under the horizontal part c' of ring c . The dome or head is then placed on ring c , the outer ring b is applied, and all are tightly clamped together on the fabric by pressing the horizontal parts of rings b c toward each other, taking the shape and arrangement shown in the last-named figure.

The construction of the rings and eyelet providing each ring with a flange which hooks around and under the part next below insures an easily-applied and very durable fastening of the elements of the stud. Once pinched together in attaching them to the fabric they will remain so permanently. The annular recess y beyond the laterally-extending ends o of the dome-slats will permit them to expand slightly under heightened temperature or as a result of use and strain without pressing against the flange v of ring b and loosening the joint of the rings.

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

1. In a spring-stud, the combination of a dome, having laterally-extending parts, with an eyelet, a ring c , provided with a flange hooking under the upper edge of said eyelet and having a raised portion which fits the interior of the said dome, and a second ring b , the inner edge of which fits the exterior of the dome at its base, and the outer part of which is provided with a flange hooking around and under the said flange of ring c , the said laterally-extending parts of the dome being held between the said rings substantially as set forth.

2. In a spring-stud, the combination of a dome having laterally-extending parts, with an eyelet fitting against both faces of the fabric and a pair of rings, the lower ring being clamped to the eyelet and provided with a part fitting the interior of the dome, the upper ring being clamped to the lower ring and fitting the exterior of the dome, and the said laterally-extending parts of the dome being held between the two rings substantially as set forth.

3. In a spring-stud, the combination of a

dome, having laterally-extending parts with an eyelet and two rings, the said rings and eyelet being clamped together, holding the said laterally-extending parts between the said
5 two rings, and providing an annular recess beyond the said parts substantially as set forth.

4. In a spring-stud, a dome consisting of radial arched resilient slats having their lower
10 ends *o* bent outward, in combination with a pair of rings receiving these ends between them, and an eyelet engaging the lower ring,

the latter having a raised part which fits the interior of the dome and the upper ring having a flange which fits around and under the
15 lower ring when the said parts are clamped in place substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ERNST THIELEMANN.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.