(No Model.) 2 Sheets—Sheet 1.

F. BENOIT.

PAD FASTENER.

No. 372,294. Patented Nov. 1, 1887.

Fig. 1

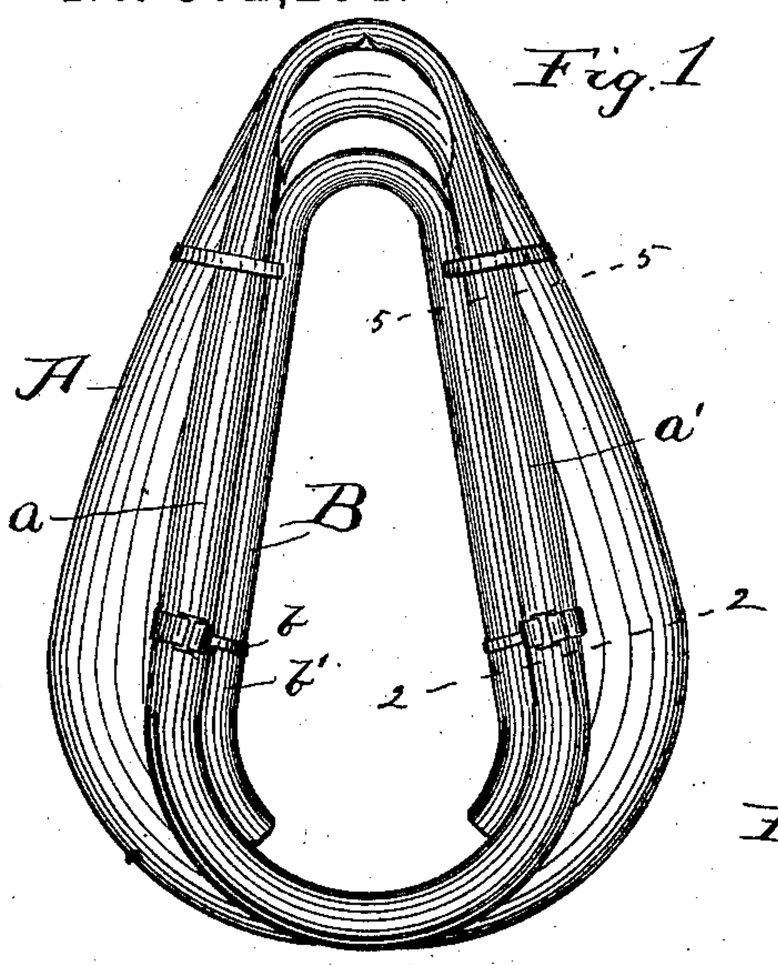


Fig. 2.

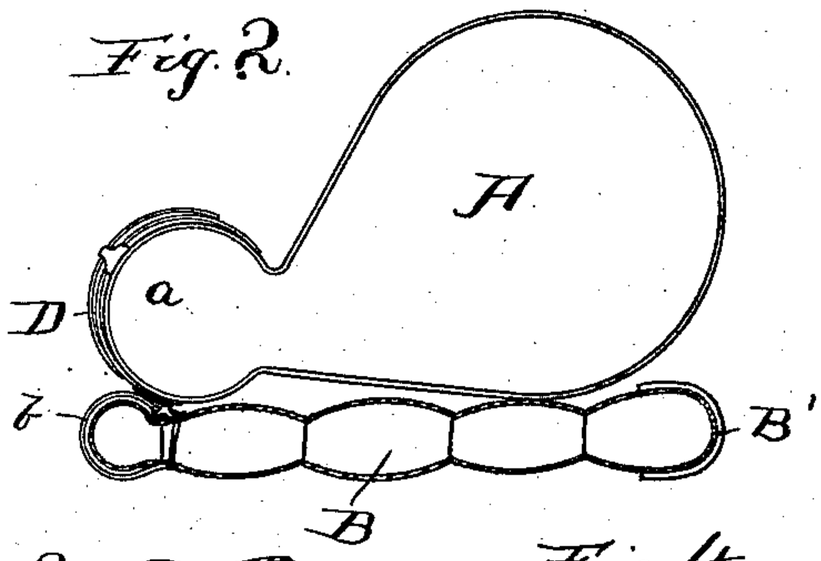


Fig. 3.

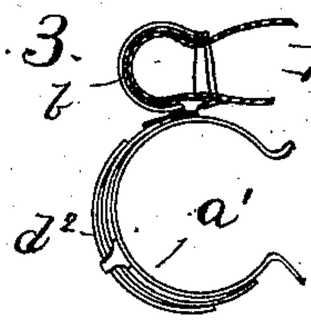
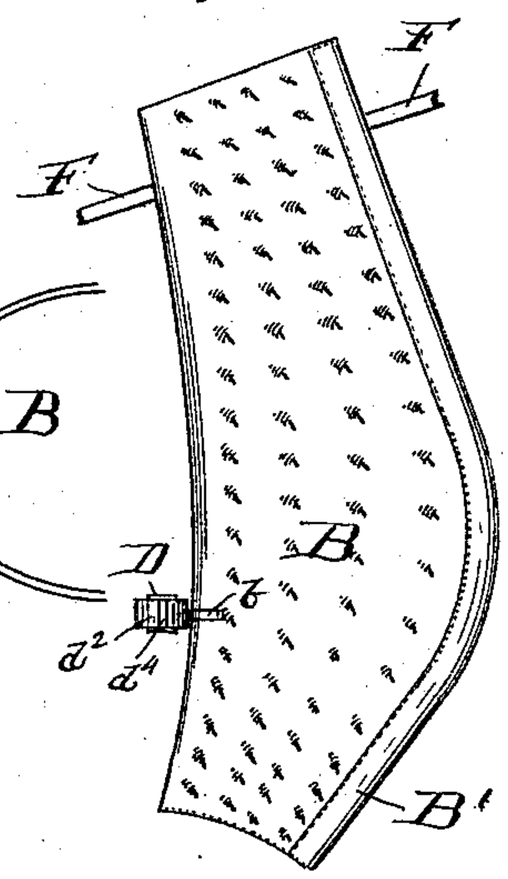


Fig. 4.



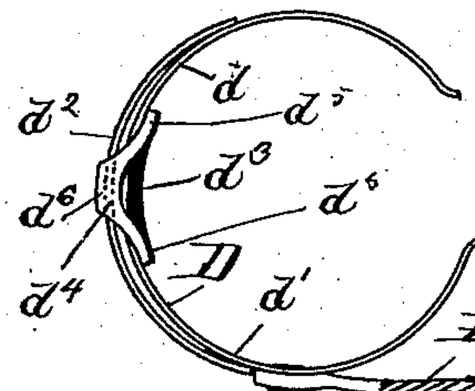
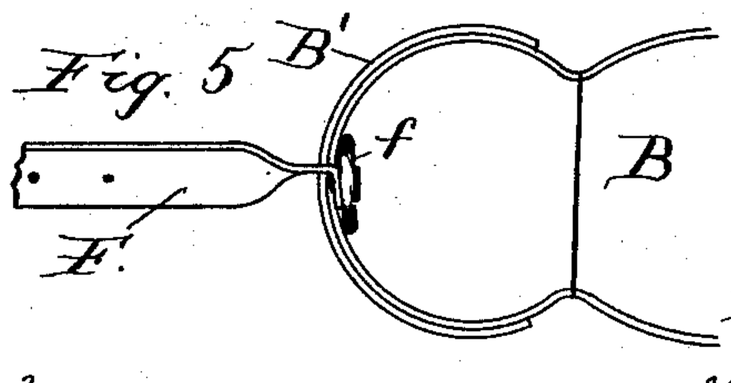


Fig. 5



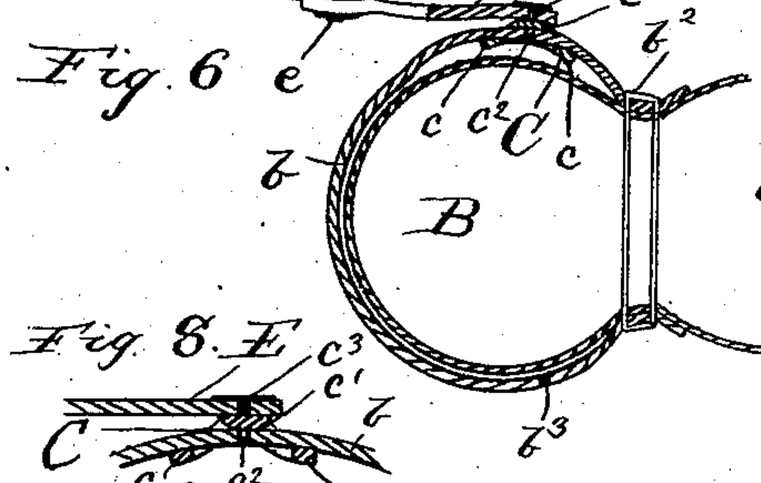


Fig. 6

Fig. 8.

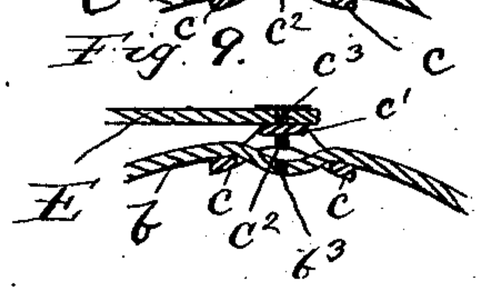


Fig. 9.

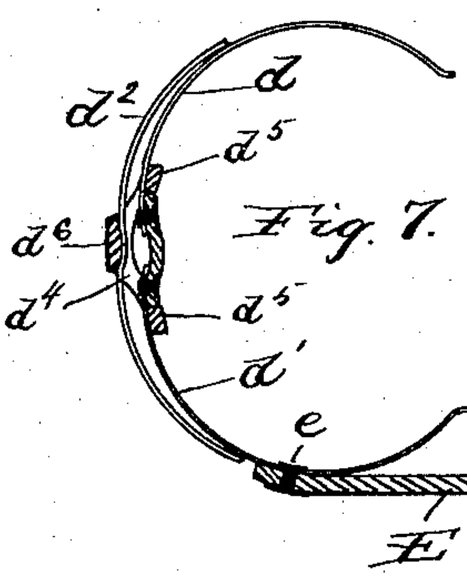


Fig. 7.

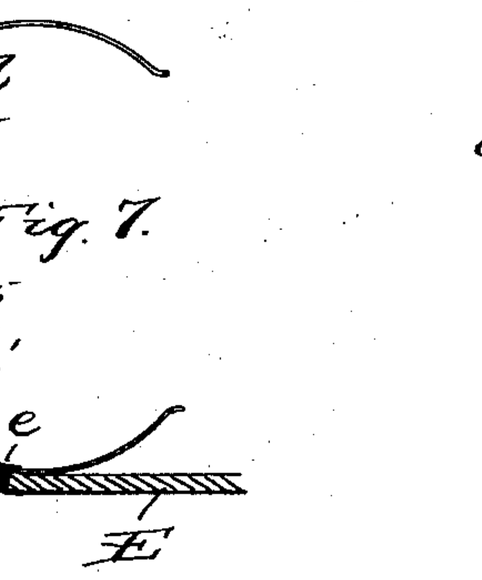


Fig. 11.

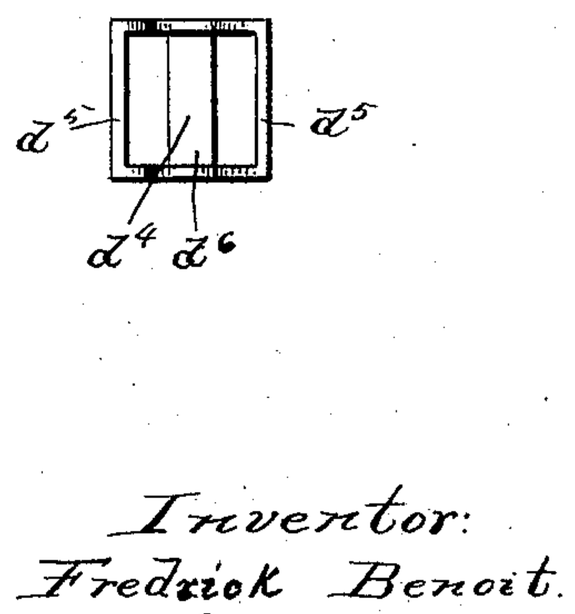


Fig. 10.

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F. BENOIT.

PAD FASTENER.

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Fig. 12

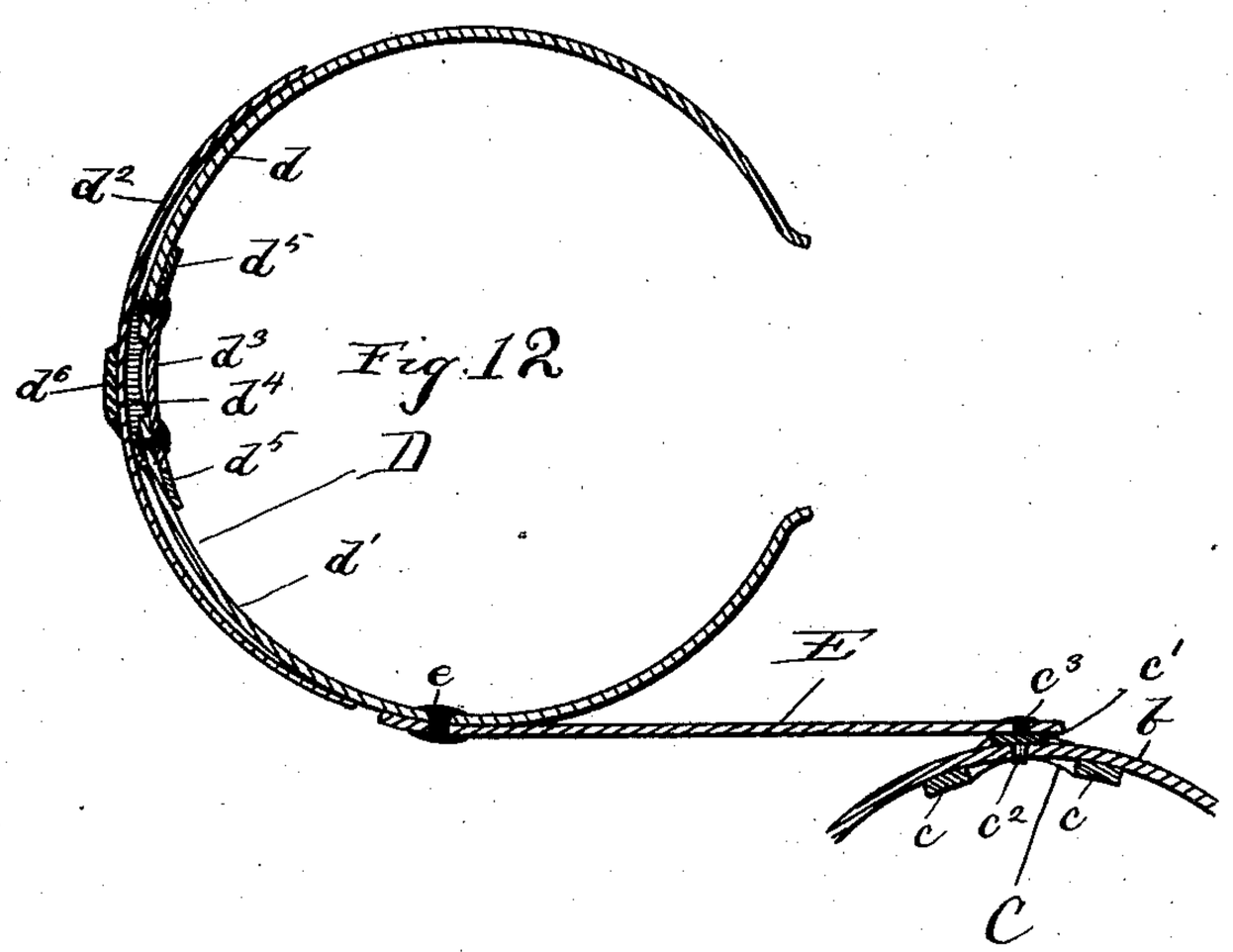
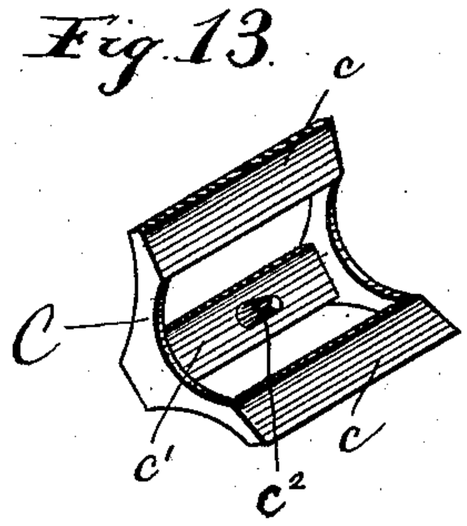


Fig. 13.



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UNITED STATES PATENT OFFICE.

FREDRICK BENOIT, OF CHICAGO, ILLINOIS.

PAD-FASTENER.

SPECIFICATION forming part of Letters Patent No. 372,294, dated November 1, 1887.

Application filed February 21, 1887. Serial No. 228,355. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK BENOIT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sweat-Pad Fasteners, of which the following is a specification.

My invention relates to sweat-pads and fasteners for the same.

My invention consists in providing the sweat-pad with a reversible fastener, so that first one face of the pad may be worn next the horse's shoulder and then the other. By this means the efficiency and real durability of the pad is almost doubled.

It further consists in the novel devices and novel combinations of devices, herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, which form a part af this specification, and in which similar letters of reference indicate like parts, Figure 1 is a front view of a collar and pad embodying my invention. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a similar view showing the pad reversed. Fig. 4 is a plan view of the pad. Fig. 5 is a section on line 5 5 of Fig. 1, enlarged. Fig. 6 is an end or edge view of the pad-fastener closed. Fig. 7 is a similar view of the fastener-clamp open or partially open. Figs. 8 and 9 are enlarged detail sectional views of the reversing-clip, to which the shank or strap of the fastener is secured. Fig. 10 is a plan view of a portion of the fastener, and Fig. 11 shows a modification. Fig. 12 is an enlarged detail view of the fastener and the clip to which the fastener-strap is secured, and Fig. 13 is a perspective view of the clip.

In the drawings, A represents a horse-collar; *a* and *a'* its rolls, to which the sweat-pad fasteners are secured, and B the sweat-pad.

The sweat-pad B is furnished near its base or lower end with a strap, *b*, extending entirely around its front edge or roll, *b'*. This strap is permanently secured to the pad by a wire staple, b^2, driven through the ends of the strap and the pad and clinched. By using sharp-pointed staples to secure the straps in place the pad will be pierced by the staples without injuring or removing the material of the pad, as is the case where the ordinary copper rivets are used.

C is a clip or buckle threaded upon the strap *b*, and adapted to slip on the same from one side of the pad to the other. This clip has three bridges or bars, *c c* and *c'*, the former fitting upon the inside of the strap *b* and the latter upon the outside. The clip is fixed in place upon either side of the pad by a pin, c^2, which enters suitable holes, b^3 b^3, in the strap *b*. The clip C is also furnished with a pivot-pin or rivets, c^3, by means of which the shank or strap E of the pad fastener D is pivotally secured thereto. When the clip C is reversed, or slipped from one side of the pad around onto the other side of the pad, as illustrated in Figs. 2 and 3, the pad-fastener is then reversed, or turned on its pivot c^3, into position to encircle the opposite roll, *a'*, of the collar.

The fastener D consists of three curved pieces of spring-steel, *d d'* d^2, the pieces *d d'* being united together at their adjoining ends by a flexible connection or strap, d^3, and the piece d^2 being of spring-steel and serving as a spring to force the curved arms *d d'* around the roll *a* or *a'* of the collar. The flat pieces *d d'* d^2 are held together by the keeper or yoke d^4, which has two bars, d^5 d^5, fitting on the inside of the spring-arms *d d'*, and a middle bar d^6, fitting on the outside of the back spring, d^2. The leather or strap connection d^3 being short and more or less yielding or elastic, serves to hold the pieces *d d'* d^2 in place in the keeper d^4, and at the same time admits of their being conveniently inserted in the keeper or yoke. As an equivalent construction, I sometimes provide the ends of the arms *d d'* with coils or eyes, and hinge them directly to the end bars, d^5 d^5, of the keeper, as shown in Fig. 11. The more convenient construction, however, is that first described.

The upper end of the pad I provide or may provide with reversible strap-fasteners F F, which are secured to the front and back edges or rolls of the pad and buckled together around the side of the collar. These straps F F are furnished with buttons *f f* at their ends, and inserted through suitable openings in the lining or fabric of the pad, so that the straps may be turned either side to, according as the pad is to be secured upon one side or the other of the

collar. These reversible strap-fasteners may also be used at the base of the collar; but I prefer to employ the spring or clip fastener.

The outer edges or roll of the pad I provide with a protector-band, B′, of leather, cloth, or other suitable material, to prevent the same becoming worn by contact with the lines or traces of the harness. These protectors B′ preferably extend along the whole outer margin of the pad, as shown in Fig. 4. I find that by means of such protectors the durability of the pad is greatly increased. The shank or strap E is secured to the curved arm d' by a rivet, *e*.

In operation, to reverse the fastener, the clip or buckle C is first slipped on the strap *b* around onto the opposite side of the pad B. The shank E is then turned on its pivot c^3, to bring the same into proper relation to the roll of the collar, as indicated in Fig. 3, and the fastener D is reversed on its pivot *c*, when the fastener will be in position for clasping the roll on the opposite side of the collar, and thus bringing the opposite face of the pad into use against the animal's shoulder.

I claim—

1. A sweat-pad provided with a fastener and a reversible clip, substantially as described, to which said fastener is attached, whereby either face of the pad is adapted to be used as the wearing-face, substantially as specified.

2. A sweat-pad provided with a strap, *b*, extending around its front edge, a clip, C, adapted to slip on said strap from one face of the pad to the other, and a fastener, as D, having a shank or strap, E, pivotally attached to said sliding clip, substantially as specified.

3. In a pad-fastener, the combination of curved arms $d\ d'$ with flat curved back spring, d^2, and keeper d^4, substantially as specified.

4. In a pad-fastener, the combination of curved arms $d\ d'$ with back spring, d^2, keeper d^4, and shank E, pivotally connected to the pad, substantially as specified.

5. In a pad-fastener, the combination of curved arms $d\ d'$ with back spring, d^2, keeper d^4, and flexible connection d^3, uniting said curved arms $d\ d'$, substantially as specified.

6. In a pad-fastener, the combination of curved arms $d\ d'$ with back spring, d^2, keeper d^4, shank E, pivotally secured to the pad, and flexible connection d^3, uniting said curved arms $d\ d'$ and shank E, substantially as specified.

7. The combination, with a sweat-pad, of a fastener for securing the pad to the collar, and means, substantially as described, for reversibly securing the fastener to the pad, whereby either face of the pad is adapted to be used as the wearing-face, substantially as specified.

8. The combination, with a sweat-pad, B, of strap *b*, secured at its front edge, sliding clip C, pivotal shank E, fastener D, and reversible strap-fastener F F, having buttons *f f*, fitted in holes at the front and back edge of the pad, substantially as specified.

9. The pad B, having reversible straps F F, provided with buttons *f f*, fitted in holes in the front and back edges of the pad, substantially as specified.

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Witnesses:
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JOHN W. MUNDAY.