W. H. KOENEN.

SHOE PROTECTOR.

APPLICATION FILED NOV. 15, 1920.

1,391,391. Patented Sept. 20, 1921.

Fig. 1.

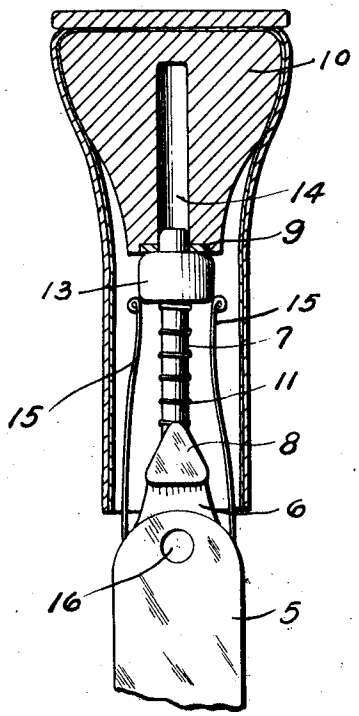
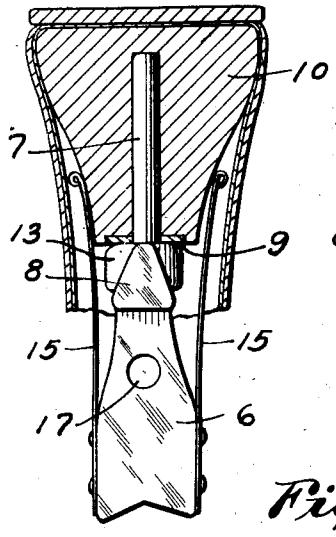


Fig. 2.



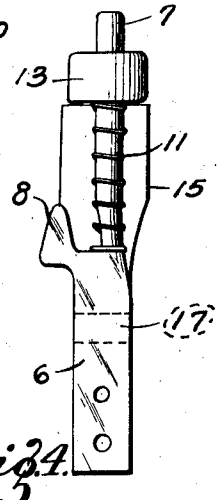
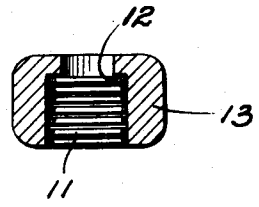


Fig. 4.

Fig. 3.



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SHOE-PROTECTOR.

1,391,391. Specification of Letters Patent. Patented Sept. 20, 1921.

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To all whom it may concern:

Be it known that I, WILLIAM H. KOENEN, a citizen of the United States, residing at St. Louis, Missouri, have invented a new and useful Improvement in Shoe-Protectors, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in shoe protectors, and has for its primary object the adjustment for lasting machines which spreads the upper of the shoe when the last and shoe are placed in the machine.

Heretofore there has been trouble in lasting shoes with the lining catching between the pin and the last, which would tear the lining and consequently also tear the upper. With my device the lining and upper are spread so this tearing will be eliminated.

In the drawings—

Figure 1 is an end elevation of my device, showing the last and a portion of the shoe in section and before the shoe is lasted;

Fig. 2 is a similar view, showing the shoe and last in position while the machine is being operated;

Fig. 3 is a vertical section of the spreader made use of; and

Fig. 4 is a side elevation of my device with one of the springs removed.

In the construction of my device, I employ a lasting machine having the jack 5. To this jack is attached the last support 6. This last support is provided with a pin 7 and a projection 8, and on this projection 8 the plate 9 of the last 10 contacts when the last is pushed down and the machine operated.

Surrounding the pin 7 is a coil spring 11, the upper end of which is seated in the recess 12 formed in the spreader 13. This recess is sufficiently large to allow the spring to be compressed entirely therein, as in Fig. 3. The last is provided with an opening 14 in which the pin 7 fits.

The last support 6 is provided on two sides with springs 15 and the spreader is so formed that when it is pushed downward it will cause the springs 15 to separate and push the lining and upper of the shoe away from the last when the same is depressed downward on the last support. In this way there is no danger or possibility of the lining or upper becoming jammed in between the last and the projection 8, nor is there danger of the lining or upper lapping over the last sufficiently to be pulled into the hole 14 when the last is depressed on the pin 7.

The jack 5 is provided with an opening 16 and the last support with an opening 17, which openings coincide and permit the insertion of a bolt for securing the last support to the jack.

By the use of my device a great deal of saving has been accomplished as the operator can work quicker, he having to pay no attention to the upper of the shoe while it is being lasted, since my device prevents the pinching and cutting, as is the cutting with the present device in use, and furthermore no shoes need be thrown out as defective through this cutting and pinching.

It will be observed that the springs 15 extend entirely from the last support 6 to and beyond the lower edge of the last when the same is depressed, as illustrated in Fig. 2, and when the last is elevated, as illustrated in Fig. 1, these springs extend to the spreader. In the former instance the springs act as guards and prevent the upper from coming into contact with the pin 7 and the bottom of the last, and in the latter instance the springs and spreader 13 afford this protection.

Having fully described my invention, what I claim is:

1. A shoe protector comprising a last and a last support, a pin carried by the last support, springs carried by the last support, and a spreader mounted on said pin, said spreader operating when it is depressed to force apart the free ends of the springs and to cause said springs to clear the bottom of the last and pass along the sides thereof.

2. A shoe protector comprising a last and a last support, a pin carried by said last support, springs secured to the said last support and extending from the last support above the bottom of the last when the same is depressed, and a spring-actuated spreader

mounted on said pin, said spreader operating when it is depressed to force apart the free ends of the springs.

3. A shoe protector comprising a jack, a last support secured thereto, a pin formed integral with said last support, a spreader slidably mounted on said pin, a spring surrounding said pin and interposed between the last support and spreader, and springs secured at one end to the last support, said spreader operating when it is depressed to force apart the free ends of the springs.

In witness whereof I have hereunto signed my name to this specification.

WILLIAM H. KOENEN.