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W. E. BUSER.

BUTTON PROTECTOR FOR TUFTING MACHINES.

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2 SHEETS—SHEET 1.

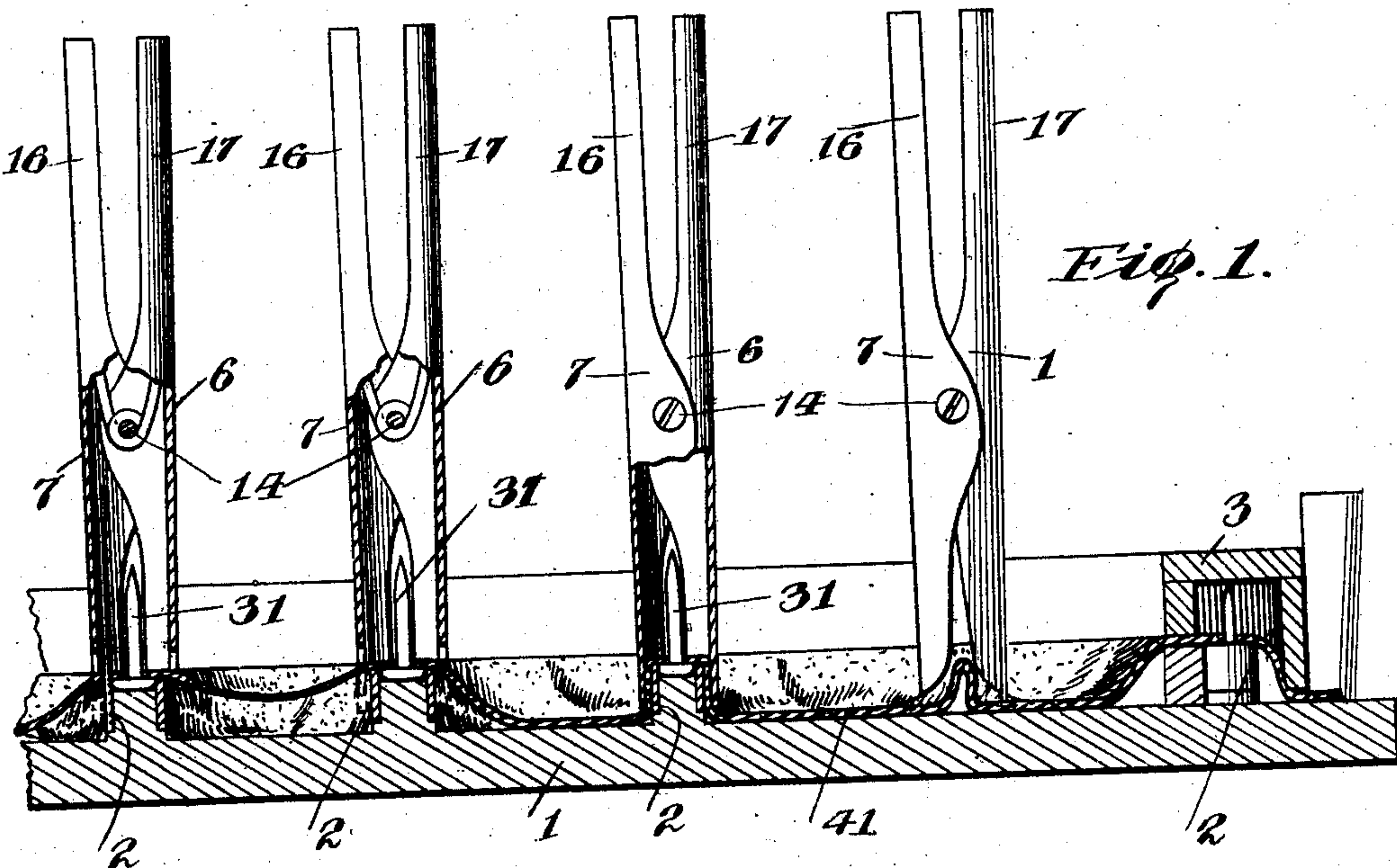


Fig. 4.

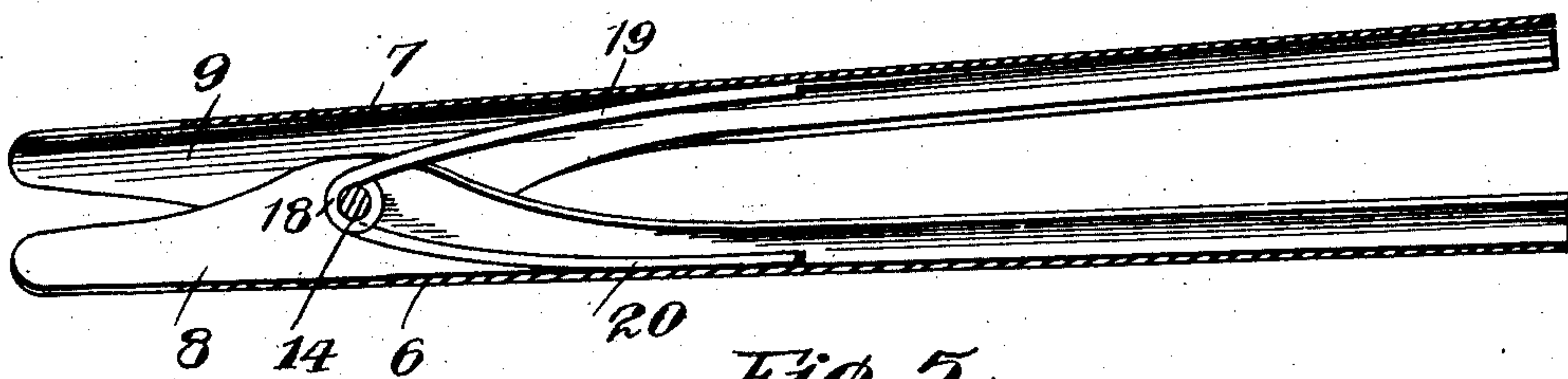
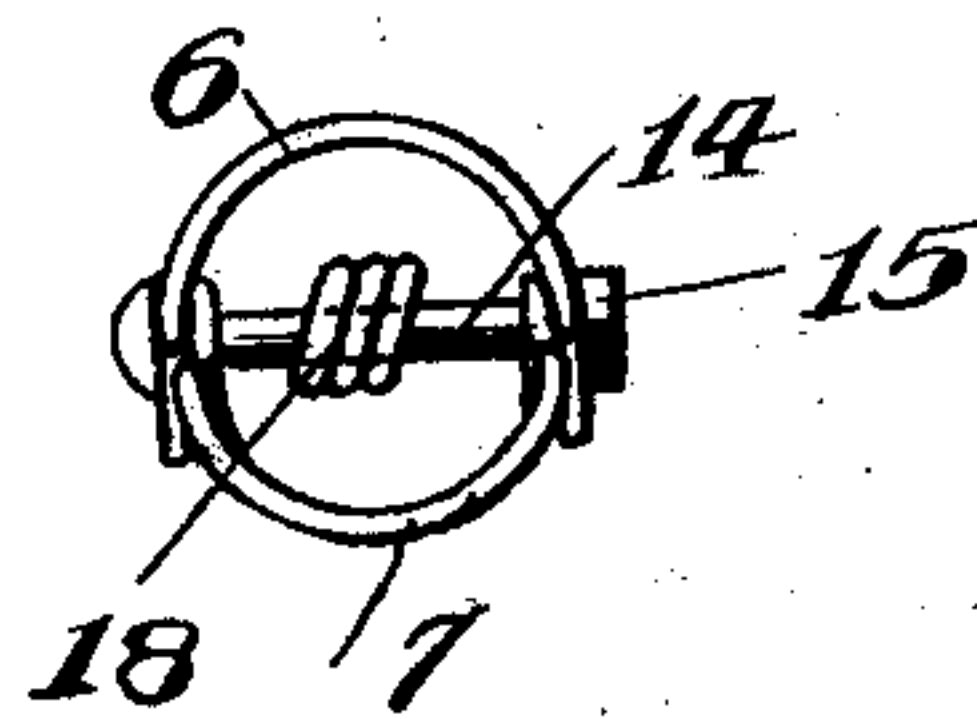


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## BUTTON-PROTECTOR FOR TUFTING-MACHINES.

No. 850,816.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed November 7, 1905. Serial No. 286,289.

*To all whom it may concern:*

Be it known that I, WILLIAM E. BUSER, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Button-Protectors for Tufting-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in button-protectors for tufting-machines, and pertains to those used in tufting either cloth or leather.

The object of my invention is to provide a device of this character which can be adjusted to fit button-holders of different sizes, and in each event the cloth is pressed down tightly and firmly around the entire button-holder, and at the same time the cloth or leather is stretched perfectly tight from one button-holder to the other. The device also protects the button to prevent the filling from coming in contact with the same while the molds are being filled with moss, tow, &c., and the device also supports the button in a perfectly tight and upright position.

Another object of my invention is to provide a more simple, cheap, and effective device to accomplish the above-mentioned results.

In the accompanying drawings, Figure 1 is a transverse vertical sectional view of a tufting-machine, showing my improved protector applied thereto. Fig. 2 is an enlarged perspective view of one form of my improved button-protector in its normal position when applied. Fig. 3 is an enlarged perspective view of another form of button-protector in the same position as Fig. 2. Fig. 4 is a longitudinal enlarged sectional view of the form of button-protector shown in Fig. 3. Fig. 5 is an end view of Fig. 2, and Fig. 6 is an enlarged perspective view of the separated parts of which the protector as shown in Fig. 3 is formed. Fig. 7 is a perspective view of the form of button-protector shown in Fig. 2 in its normal position when not applied. Fig. 8 is a perspective view of the form of button-protector shown in Fig. 3 in its normal position when not applied.

Referring now to the drawings, 1 represents the tufting-machine, which is of any well-known form, as covered in my prior patent, and which is provided at the proper distances apart with the upwardly-extending button-holders 2, which are also of a form

covered in one of my prior patents and which are simply shown for the purpose of showing the application of the protector. The machine, as shown, is provided with the surrounding box-like portion 3, which is adapted to be adjusted so as to give the proper size and shape to the cloth being tufted and to hold the same in its stretched relation. The buttons 31 are supported by the holders and the cloth 41 is placed over the same and stretched tightly and the buttons forced through the cloth or leather.

My improved button-protector, as shown, consists of two pivoted members 6 and 7, formed of sheet metal and pivoted together, so that the same may be readily placed over the button-support and firmly clamp the cloth around the same, as will be presently described. The two members 6 and 7, as before stated, are made of sheet metal and have their lower ends 8 and 9 formed of a semi-circular form, the portion 9 being slightly larger than the portion 8, so that they may be adapted to telescope, as will be clearly shown in Fig. 5 of the drawings. The said portions 8 and 9 above the lower end is provided with inwardly-extending ears 10 and 11, which are provided with openings 12 and 13, which are adapted to register with each other when the ears are in their telescoped position. Passing through said openings and pivotally securing the two members together is a bolt 14, which is provided with a nut 15 to prevent the same from being displaced.

The upper ends of the portions 8 and 9 are extended upward considerably and are tightly rolled to form contracted handle portions 16 and 17, which, as shown in Fig. 4 of the drawings, are of a hollow form. Surrounding the bolt 14 is a coiled spring 18, which has its ends 19 and 20 extending upward within the hollow handle portions 16 and 17 and normally holding the lower ends 8 and 9 in an inward telescoping position, as shown in Fig. 5.

In the form shown in Fig. 3 I have shown the lower ends 8 and 9 of the pivoted member provided with slots or cut-away portions 21 and 22, which are for the purpose now to be described. On the right of Fig. 1 I have shown the form of protector as shown in Fig. 2, which allows the cloth to pass up between the two pivoted members on opposite sides and form one form of tufted articles, while on the left of said figure I have shown the form shown in Fig. 3, which allows the cloth or



leather to pass between the two pivoted members and also within the slots 21 and 22 and to form another form of tufted article.

In each of said cases it is understood that the lower ends 8 and 9 of the protector are opened by forcing the handles together and are thus placed over the button-support and the handles released, and the spring firmly clamps and holds the cloth down around the button-support and stretches the same preferably tight from one button-holder to the other, as is clearly shown, and the protectors remain thereon until the same is filled with moss, tow, &c.

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

1. A button-protector, comprising parallel pivoted spring telescoping-jaws adapted to hold the cloth on the button-holder of a tufting-machine.

2. A button-protector, comprising two semicircular jaws having extended pivotal portions, handles extending parallel with the jaws, and a spring within the handle for normally holding the jaws together.

3. A button-protector, comprising two semicircular jaws of different circumference and having extended pivotal portions, a pivot passing through the pivotal portions, handles carried by the jaws parallel therewith and a spring surrounding the pivot and extending within the handles for normally holding the jaws closed one within the other.

4. A button-protector, comprising two semicircular jaws having rounded ends and longitudinal slots, extended pivotal portions carried by the jaws overlapping each other, a pivot passing through the pivotal portions, handles carried by the jaws parallel therewith and a spring surrounding the pivot and extending within the handles for normally holding the jaws closed one within the other.

5. A button-protector, comprising two parallel jaws having extended pivoted portions, and parallel handles extending parallel with the jaws.

6. A button-protector, comprising two parallel telescoping jaws, and parallel handles carried by the jaws and extending parallel therewith.

7. A button-protector, comprising two parallel telescoping jaws pivoted together and normally held in their telescoped position by a spring, and handles carried by the jaws and extending parallel with the jaws, and parallel with each other.

8. A button-protector, comprising two semicircular parallel jaws of different circumferences, and having extended telescoping ears, a pivot passing through the ears, handles carried by the jaws and parallel therewith and parallel with each other, and a spring surrounding the pivot and extending within the handles and holding the handles in an outward position with the jaws closed in their telescoped position.

9. A button-protector, comprising two semicircular elongated parallel jaws of different circumferences, and having inwardly-extending overlapping ears, the outer ends of said jaws opposite each other provided with slots, a pivot passing through the ears, handles carried by the jaws and forming a continuation of the jaws and parallel therewith, and a spring coiled around the pivot and having its free ends extending within the handles and normally holding the handles in an outward position with the jaws closed in their telescoped position.

10. A button-protector for a tufting-machine, comprising two semicircular elongated parallel jaws formed of pieces of sheet metal and having their upper ends extending and rolled forming continuous parallel handle portions, inwardly-extending ears intermediate the handle and jaw portions, and overlapping each other, the outer ends of said jaws being provided with elongated slots, a pivot passing through the ears, and a coiled spring coiled upon the pivot and having its free ends extending within the rolled handles and normally holding the handles outward with the jaws in their closed telescoped position.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. BUSER.

Witnesses:

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