(No Model.)

E. L. N. STEEN.

GAGE SHEARS.

No. 598,031. Patented Jan. 25, 1898.

Fig. 1.

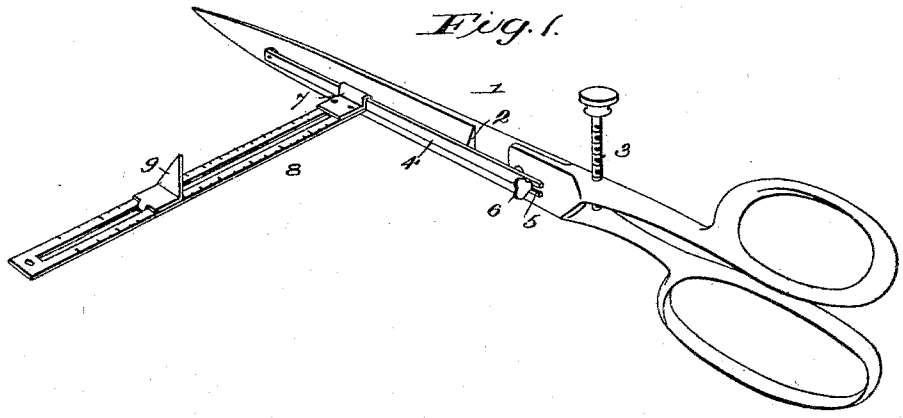


Fig. 2.

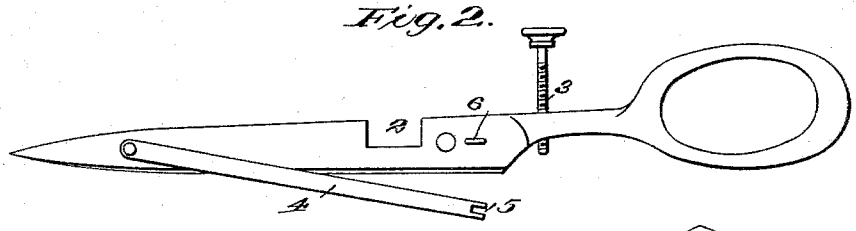


Fig. 3

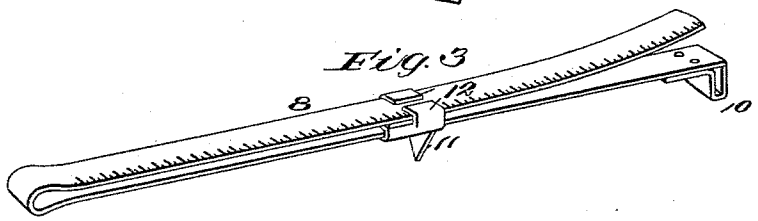


Fig. 4.

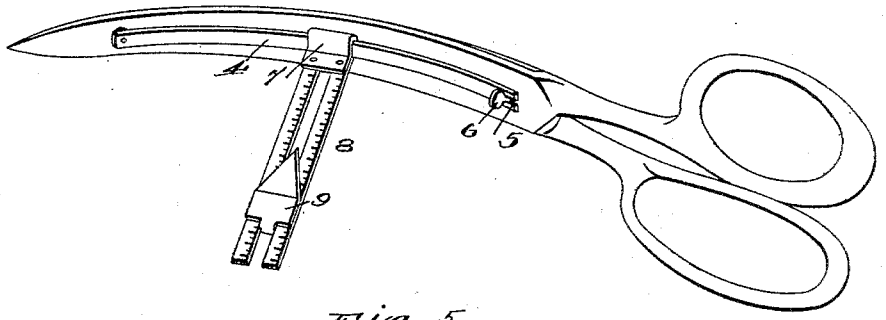
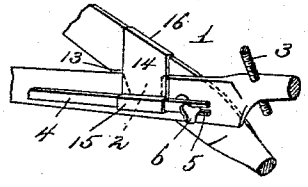


Fig. 5.



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UNITED STATES PATENT OFFICE.

EMMA L. NEVADA STEEN, OF CORPUS CHRISTI, TEXAS.

GAGE-SHEARS.

SPECIFICATION forming part of Letters Patent No. 598,031, dated January 25, 1898.

Application filed December 4, 1897. Serial No. 660,748. (No model.)

To all whom it may concern:

Be it known that I, EMMA L. NEVADA STEEN, a citizen of the United States, residing at Corpus Christi, in the county of Nueces and State of Texas, have invented certain new and useful Improvements in Shears; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to shears; and it consists, essentially, of a pair of shears having buttonhole-slots and an adjusting-screw to regulate the same, together with a movable bar or support on the side of one of the blades adapted to receive removable gages.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

The object of the invention is to provide attachments, in connection with a pair of shears, which are adapted to be substituted one for the other or used unitedly when the work requires and intended for the purpose of facilitating the cutting of strips of material from a main web having a regular width, either straight or bias, for the purpose of forming ruffles or other uses and in addition to arrange the shears for cutting buttonholes, the parts being simple and effective in their construction and operation, strong and durable, easily and readily operated, and comparatively inexpensive in the cost of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of a pair of shears embodying the invention and showing one of the attachments applied thereto. Fig. 2 is a side elevation of one of the shears, showing the mode of applying the attachments. Fig. 3 is a detail perspective view of an attachment adapted to be used in connection with the shears. Fig. 4 is a detail perspective view of a pair of curved shears, showing the invention applied thereto. Fig. 5 is a detail view of an attachment shown applied for the purpose of arranging buttonhole-shears for ordinary work.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a pair of shears which have a construction similar to devices of this class, and in the blades thereof at a suitable point and oppositely positioned are slots 2 and at the rear a gage-screw 3, by means of which the said shears may be employed for forming buttonholes of various lengths. Pivotally attached to the front portion of the outer side of one of the blades is a bar or support 4, having a rear slotted end 5, adapted to be engaged by a set-screw 6. Adjustably mounted on the said bar or support 4 is an inner angularly-looped end 7 of a slotted gage 8, having a guide 9 movably mounted thereon and a portion thereof extending through the slot. The said guide stands upwardly from the gage, and along the opposite edges of the latter is a scale suitably divided and representing inches and fractions of an inch. In applying the inner looped end of the gage to the bar or support 4 the latter is first released by disengaging or loosening the set-screw or thumb-swivel 6 and allowing it to drop down, as shown by Fig. 2, when the said looped end of the gage can be easily positioned on the bar or support and the latter afterward secured in operative position, as shown by Fig. 1.

In use the shears with the attachment just described are arranged on the cloth or material to be cut, the guide on the gage being first arranged to represent the width of the strip of material to be severed from the main web. After this adjustment has been secured the shears are then operated to cut the material and the severed strip will be of an equal width throughout, and during the movement of the said shears through the material the guide bears against the outer edge and produces a uniformity in the cutting-line. The scale-marks are used in gaging the distance between buttonholes.

As shown in Fig. 3, a still further attachment is illustrated and has an inner looped end 10 to engage the bar or support 4. This attachment is made of sheet metal doubled upon itself with the inner end free and can be used to hold the material between the two parts. This latter attachment is also supplied with a guide 11, constructed of a single piece of sheet metal and having inwardly-bent ends 12, which take over the opposite

portions of the attachment and hold the same closely together at the point of engagement of the said guide. The latter attachment is also divided by suitable graduation-marks into inches and fractions of an inch and may be extended any length desired or its proportions and dimensions increased and different sizes of the said attachment may be supplied with the shears to adapt the latter for different kinds of work.

In Fig. 4 a pair of curved shears are shown supplied with the bar or support 4 and adapted to receive either one of the gage attachments heretofore described; also, the opposite side of the blade of the shears in this instance, as well as in that shown by Fig. 1, may have other devices applied thereto.

As shown by Fig. 5, the shears embodying the buttonhole-slots are adapted to be arranged for ordinary cutting-work by means of guard 13. This guard comprises a metallic plate having an intermediate flat body portion 14, with a lower loop 15 to removably fit the bar or support 4, and an upper inclined flange 16. In applying this device it is placed in such position as to cover the slots 2 and prevent the material being cut in the ordinary use of the shears from slipping back into the said slot. The flange 16 hangs over the upper part of the shears and limits the upper movement of one blade when the shears are open, the angle of the flange accommodating the angular position of the open blade by a predetermined calculation. This attachment can be readily attached to bar 4 or be quickly removed therefrom and adds materially to the general usefulness of the shears.

In making these shears it will be found preferable to manufacture them with all the attachments and accompany the same by a description as to the mode of application and the use thereof.

In the use of the device as shown arranged in Figs. 1 and 4 the projecting portion of the guide 9 enters each hole as it is cut and thereby spaces the same at equal distances apart. Furthermore, the gage-screw, as shown, may have substituted therefor any other preferred form of device of a similar nature arranged at a suitable angle to accommodate the proper operation of the shears in forming buttonholes.

It will be observed that the shears are not materially changed in the application of the device and can be equally well made without the buttonhole attachments, and it is also intended to be understood that the bar or support 4 may be applied to a pair of ordinary shears, either straight or curved, independent of any other devices.

It is obviously apparent that many minor changes in the details of construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. A pair of shears having a support or bar pivotally attached at one end to the outer side of one of the shear-blades and detachable at the opposite end, and a gage movably mounted on said support or bar, substantially as described.

2. In combination with a pair of shears adapted for cutting buttonholes, of a bar having one end pivotally attached to the outer side of one of the shear-blades and the opposite end detachable, a gage removably and adjustably mounted on said bar or support, and a guide adjustably carried by the said gage, substantially as described.

3. In combination with a pair of shears adapted for cutting buttonholes, of a bar having one end pivotally attached to one of the shear-blades and the opposite end slotted longitudinally, a set-screw to engage the slotted end of said bar, and a gage removably and adjustably mounted on said bar, substantially as described.

4. In combination with a pair of shears having a buttonhole-slot in the rear part of one of the blades, of a removable covering attachment for said slot, substantially as described.

5. In combination with a pair of shears having a buttonhole-slot in the rear portion of one of the blades, of a removable covering attachment for said slot having an upper flange hanging over the upper part of the shears to limit the upward movement of one blade, substantially as described.

6. In combination with a pair of shears having a buttonhole-slot in the rear part of one of the blades, a bar pivoted on the said slotted blade, and a covering attachment for the said slot removably mounted on the said bar, substantially as described.

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

EMMA L. NEVADA STEEN.

Witnesses:
EARL OBERLIN,
REEVE LEWIS.