

C. Spofford & W. S. Bell.
Collar Mach.

N^o 44022.

Patented Aug. 30. 1864.

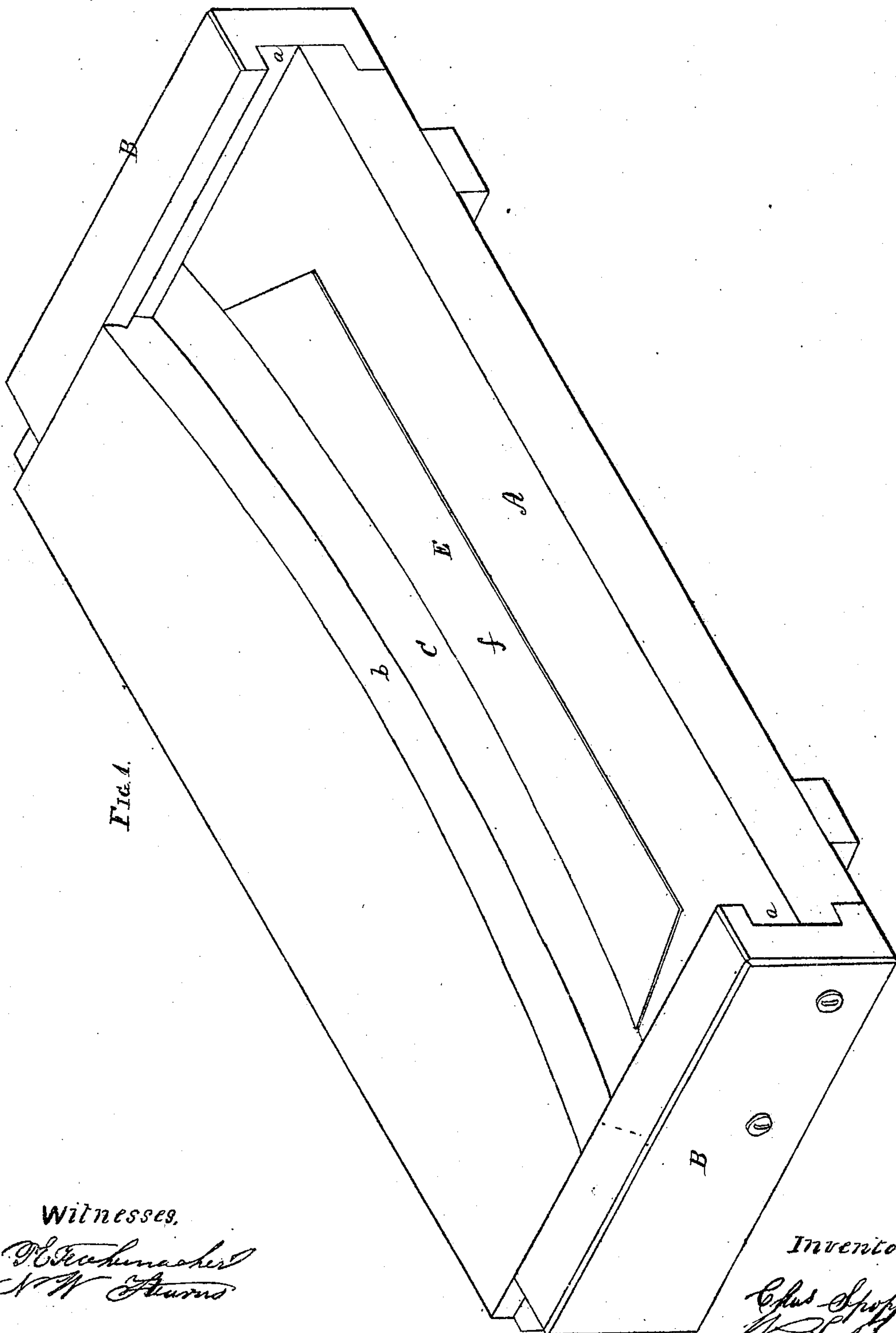


Fig. 1.

Witnesses.

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Fig. 2.

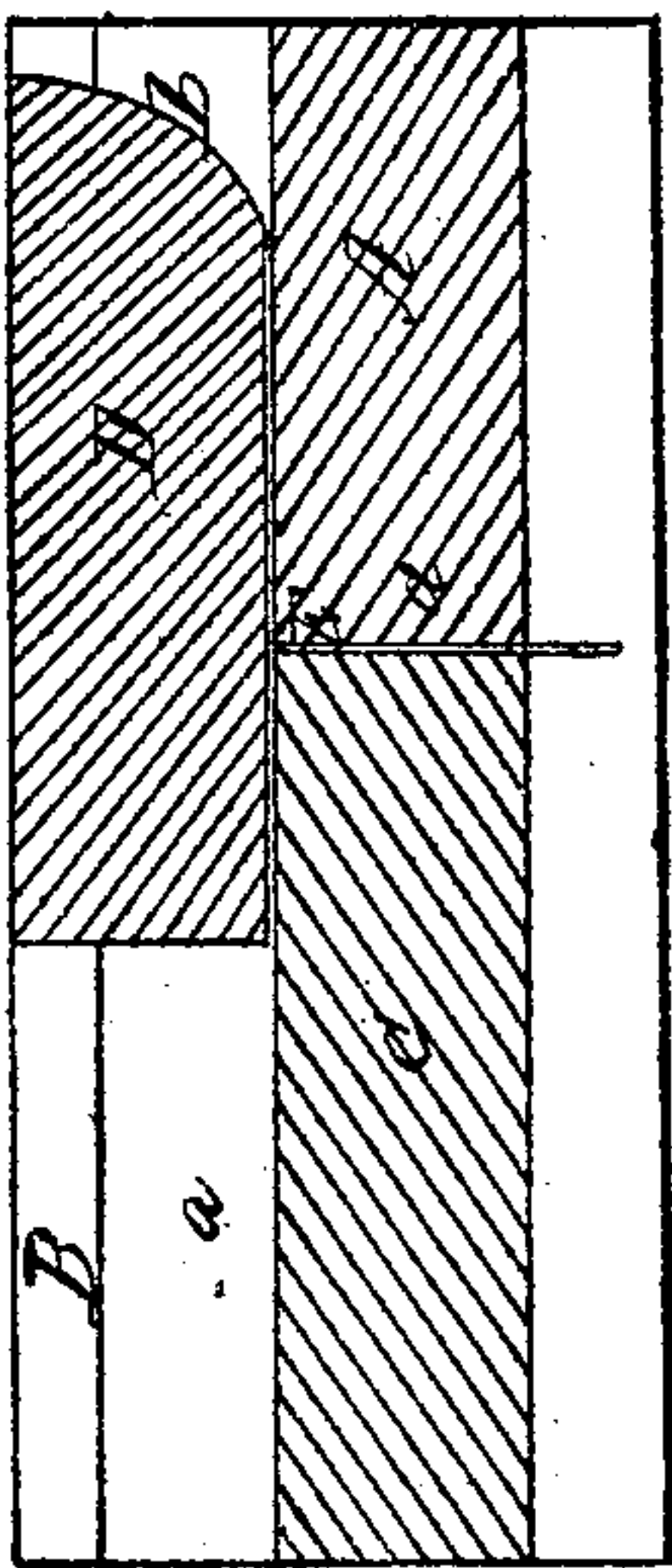
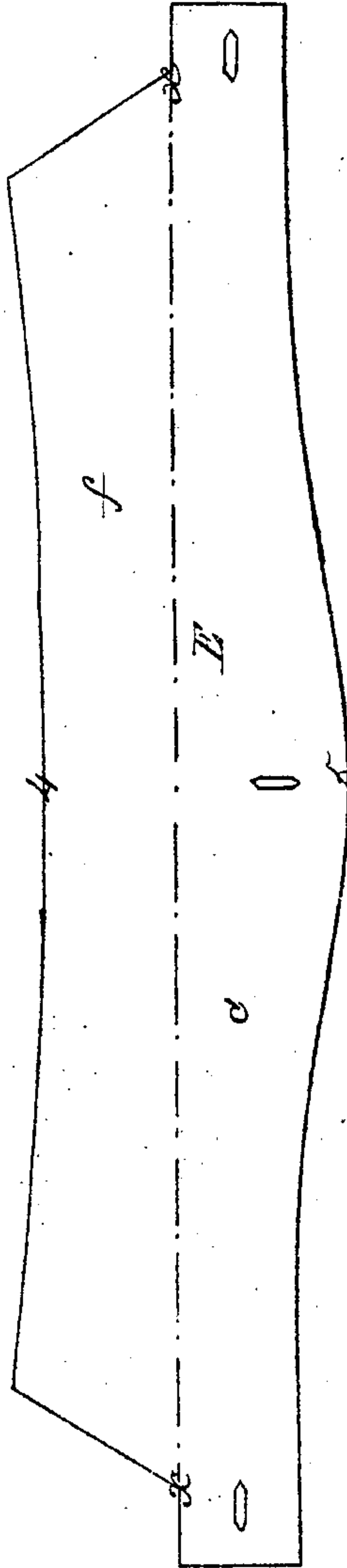


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES SPOFFORD AND WILLIAM S. BELL, JR., OF BOSTON, MASS.

IMPROVEMENT IN PAPER SHIRT-COLLARS.

Specification forming part of Letters Patent No. 44,022, dated August 30, 1864.

To all whom it may concern:

Be it known that we, CHARLES SPOFFORD and WILLIAM S. BELL, Jr., both of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Paper Collars; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the apparatus I employ for turning down the outer fold of the collar, showing a collar after it is stretched. Fig. 2 is a vertical transverse section through the center of Fig. 1, showing the presser-block in the position it occupies when the collar is turned over; and Fig. 3 shows the form of the collar before it is turned over, the straight line upon which it is turned over being shown in red.

The ordinary collar cut from a strip of paper and turned over on a straight line is objectionable, for the reason that the outer fold or part which is turned over, when bent around the neck, binds closely against the inner fold, leaving no space between the two for the cravat or necktie, also causing the inner fold to wrinkle vertically and prevent it from neatly fitting the neck. These difficulties have been obviated by turning over the outer fold of the collar on a curved or angular line, instead of a straight line, thereby leaving sufficient space between the folds for the necktie, as described in the Letters Patent of the United States granted to S. S. Gray on the 23d of June, 1863.

The object of our invention is to overcome these difficulties; and it consists in stretching or elongating the outer fold, so as to give it the required "spring" or "set-off" to admit the necktie and prevent the creasing or wrinkling of the inner fold when bent around the neck, the edge on which the collar is turned being a straight line, which is accomplished by holding up the lower portion of the paper strip which forms the inner fold in a curved recess and confining it therein, while the upper part, which forms the outer fold, is pressed over on a flat surface, thereby elongating the outer edge as required.

To enable others skilled in the art to understand and use our invention, we will now proceed to describe the manner in which we have carried it out.

In the said drawings, A is a block or table,

to which are secured the side pieces, B, in grooves *a*, within which slides a block, C, the line forming the intersection of the two blocks A and C being curved, as seen in Fig. 1. Upon the blocks A and C and in the upper portion of the grooves *a* slides a presser-block D, the front face, *b*, of which is curved and rounded, as shown in Figs. 1 and 2. The collar E being cut from a strip of paper of the form shown in Fig. 3, the lower portion, *c*, which is to form the inner fold, is set up against the curved face *d* of the block A, and so placed that the part of the collar between the edge *e* and the red line will lie below the upper edge of the face *d*, while the line *xx* will be level with the horizontal surface of the block A, a suitable gage being provided for this purpose. The block C is now brought up so as to confine the collar E tightly between the two blocks A and C, after which the presser-block D is passed over the surface of the blocks A and C, pressing over in its passage the portion *f* of the collar projecting above, as seen in Fig. 2, by which operation the curved edge *g*, Fig. 3, is stretched or drawn out into a straight line, as seen in Fig. 1, and the whole of the outer fold stretched throughout, the degree of stretching being increased gradually from the red line *xx* to the edge *g*. (See Fig. 3.) The required spring or set-off from the inner fold is thus given to the collar when bent around the neck, so as to admit the necktie without wrinkling. The weight of the presser-block D, or the pressure applied thereon, may be increased to any degree required.

We do not confine ourselves to the particular apparatus here shown and described, as it is evident that it may be varied considerably without departing from the spirit of our invention, nor do we claim, broadly, expanding a portion of a collar, while the rest of it is unchanged in form.

What we claim as our invention, and desire to secure by Letters Patent, as an improvement in paper collars, is—

Stretching or elongating that portion *f* of the collar which forms the outer fold, substantially as set forth, for the purpose specified.

CHAS. SPOFFORD.
W. S. BELL, JR.

Witnesses:

N. W. STEARNS,
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