

(No Model.)

W. H. BUSTIN.
Shaper for Horse Collars.

No. 236,547.

Patented Jan. 11, 1881.

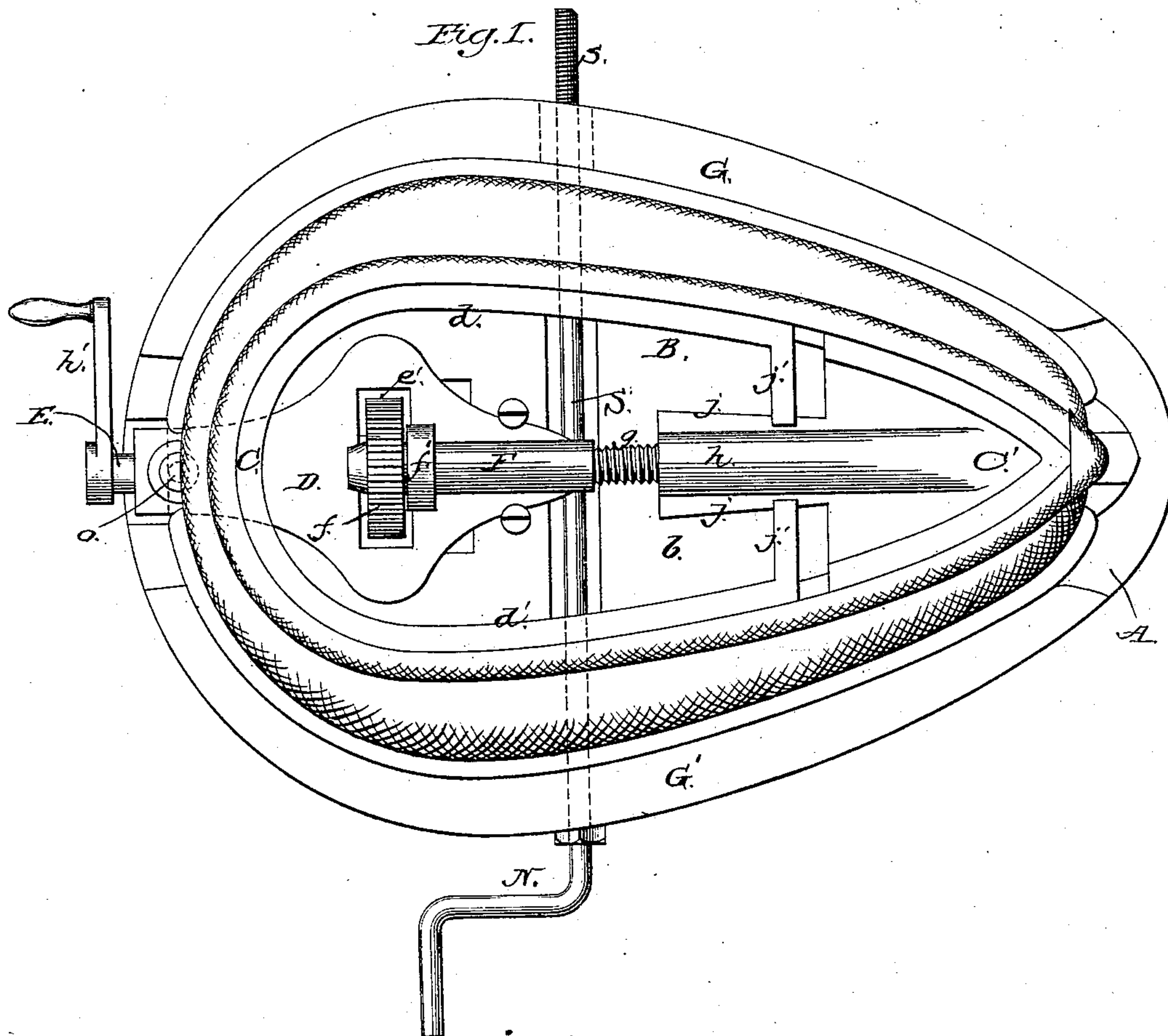
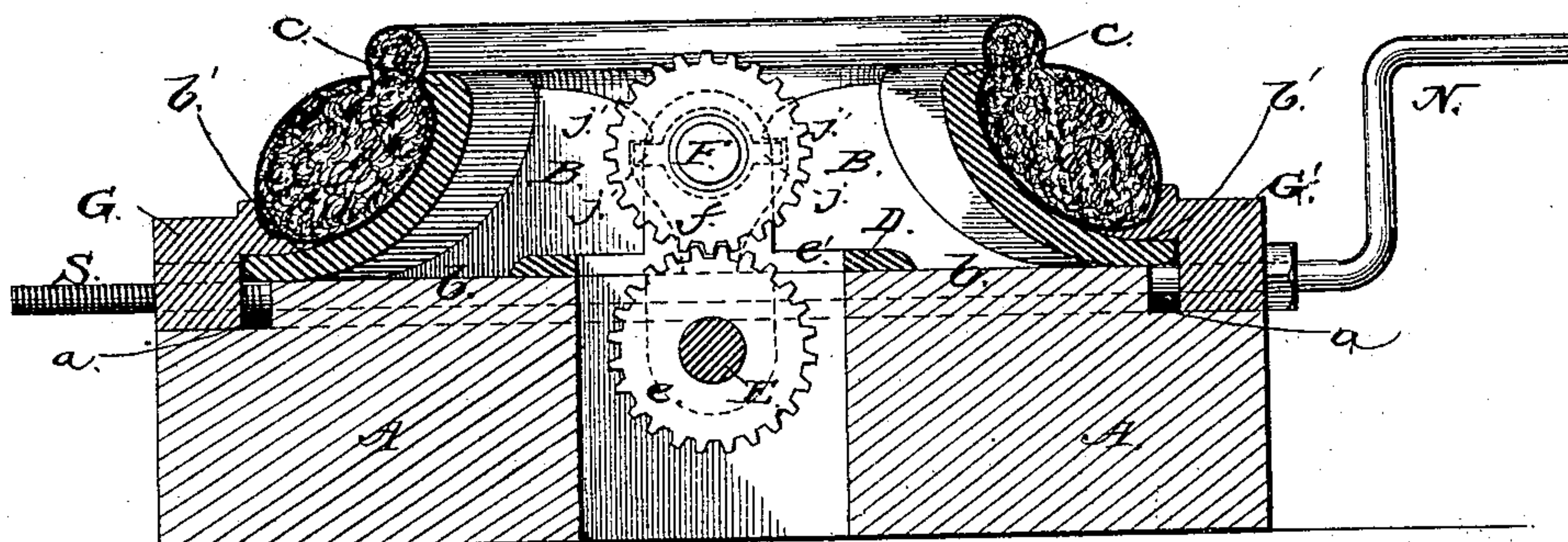


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. BUSTIN, OF BOSTON, MASSACHUSETTS.

SHAPER FOR HORSE-COLLARS.

SPECIFICATION forming part of Letters Patent No. 236,547, dated January 11, 1881.

Application filed July 3, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BUSTIN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and valuable Improvement in Shapers for Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of my improved shaper and stretcher for horse-collars, and Fig. 2 is a transverse section thereof.

This invention has relation to improvements in means for shaping and stretching horse-collars; and it consists in a former or shaper constructed and operating substantially as hereinafter shown and described.

In the annexed drawings, the letter A designates the base of my improved machine, having the general form of a horse-collar, and having on its edges a rabbet, *a*, forming a raised table, *b*, at its top.

B designates the former and stretcher, composed, essentially, of a fixed section, C, and an extensible section, C', the whole presenting the outline of a collar. These sections have concave outer surfaces, *b'*, the concavity being greater or less, according to the shape desired to be given to the collar, and being each provided with a projecting rim, *c*, to prevent the collar from slipping off. The section C is composed of two subsections, *d d'*, having independent horizontal vibration upon a pivot, *o*, at the gullet of the shaper, and screwed into a metallic plate, D, secured to the base A. The subsections *d d'* are, therefore, readily removable, and others having a different external contour may be substituted therefor. The plate D affords bearings on its under side to a longitudinal shaft, E, having a gear-wheel, *e*, extending up through a slot, *e'*, in the said plate, and engaging a similar gear, *f*, on a shaft, F, on the upside of the said plate. This shaft has its bearings in a post, *f'*, on plate D, and is incapable of endwise motion. It is provided on its free end with a screw-thread, *g*, that engages a correspondingly-threaded horizontal stem, *h*, projecting from the section C', as indicated in Fig. 1. This section is loose

upon its bed, and is moved away or drawn toward the section C by the rotation of shaft E, caused usually by a crank, *h'*. The stem *h* is provided with lateral wings *j*, that increase gradually in width from the body of the section C' outward, so that when the collar is being stretched longitudinally the wings *j*, that engage notched projecting arms *j'* on the free ends of the vibrating sections *d d'*, also stretch it laterally.

G G' indicate the lateral compressors, having the general shape of a hame, and seated at each side of the machine in the rabbet *a* of the base A. Each of these compressors is longitudinally curved on its inner face to correspond to the longitudinal curvature of the inner or bearing side of the collar, and is transversely concave, to suit the transverse convexity of the bearing or pad of the collar, this concavity being different, to suit the various convexities designed to be given to the said bearing or pad. These lateral compressors are drawn together, thus shaping the bearing or pad, where it rests against the neck and shoulders, by means of a clamp-screw, S, extending through the compressors from side to side of the machine, and operated by a crank, N. Thus it will be seen that not only is the collar shaped and stretched by the separation of section C' from the section C, but is also made to preserve a proper width relative to its length by the lateral spreading of the subsections *d d'*, and is formed on its bearing or pad side. Thus it will be perceived that a collar too small for an animal may be enlarged by wetting it, placing it on the shaper, and operating the cranks.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the base A, of the section C, composed of two subsections, *d d'*, having independent horizontal vibration upon a pivot, *o*, at the gullet of the shaper, a mechanism spreading said parts *d d'*, the section C', and a mechanism adjusting the same to or from the section C, as set forth.

2. The combination, with a base, A, of the sub-shaper sections *d d'*, vibrating horizontally thereon, having the notched arms *j'*, and pivoted together, the sliding section C', having the internally-threaded stem *h*, provided with the lateral converging wings *j*, the non-endwise-

movable shaft F, engaging said stem, and a mechanism operating the said shaft, substantially as specified.

3. The combination, with the fixed section
5 C, composed of the hinged subsections d d' ,
the section C', extensible relative thereto, and
both longitudinally and transversely curved on
their outer surfaces to correspond to the lon-
gitudinal and transverse curvatures of the in-
10 side of the collar, and the lateral compressor-
plates internally curved to form the bearing-

surfaces of the collar, and a mechanism draw-
ing the said plates together, substantially as
specified.

In testimony that I claim the above I have 15
hereunto subscribed my name in the presence
of two witnesses.

W. H. BUSTIN.

Witnesses:

PHILIP C. MASI,

J. W. HAMILTON JOHNSON.