W. Criswell,

Horse-Collar Machine.

No. 6,804. Patented Oct. 16, 1849.

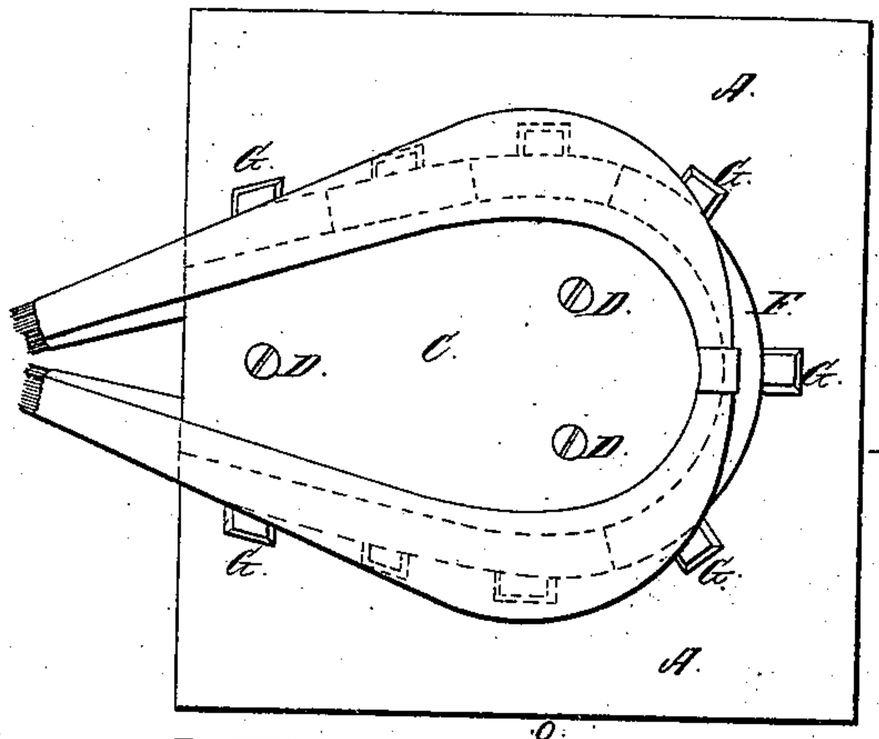
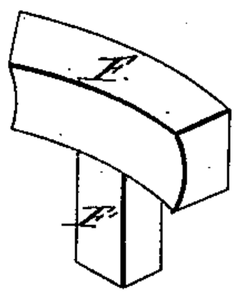


Fig. 1.

Fig. 7.



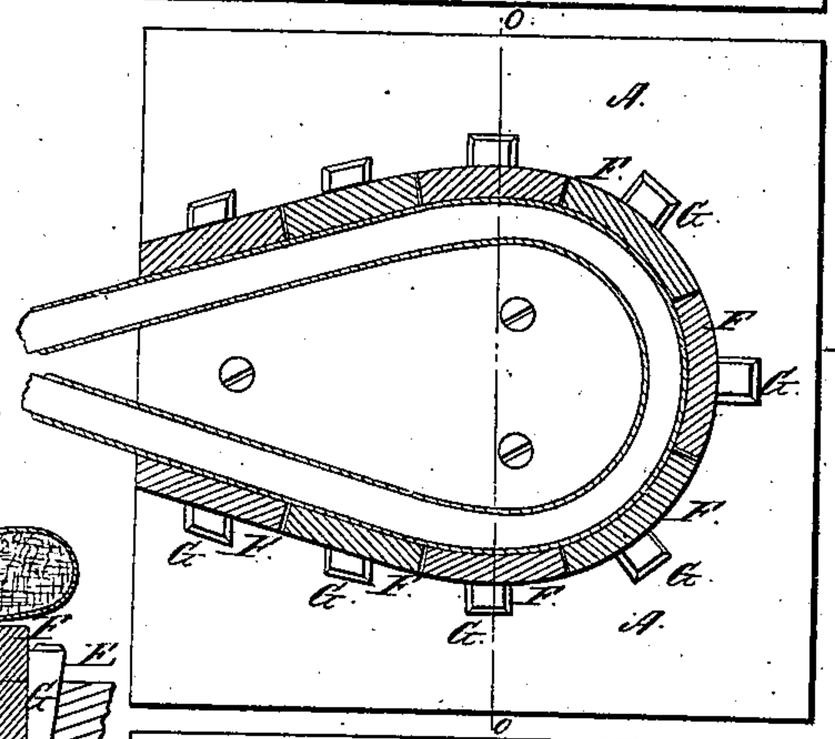
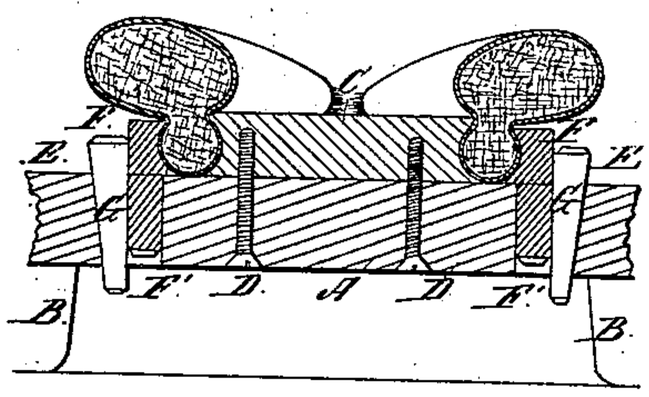


Fig. 2.

Fig. 5.



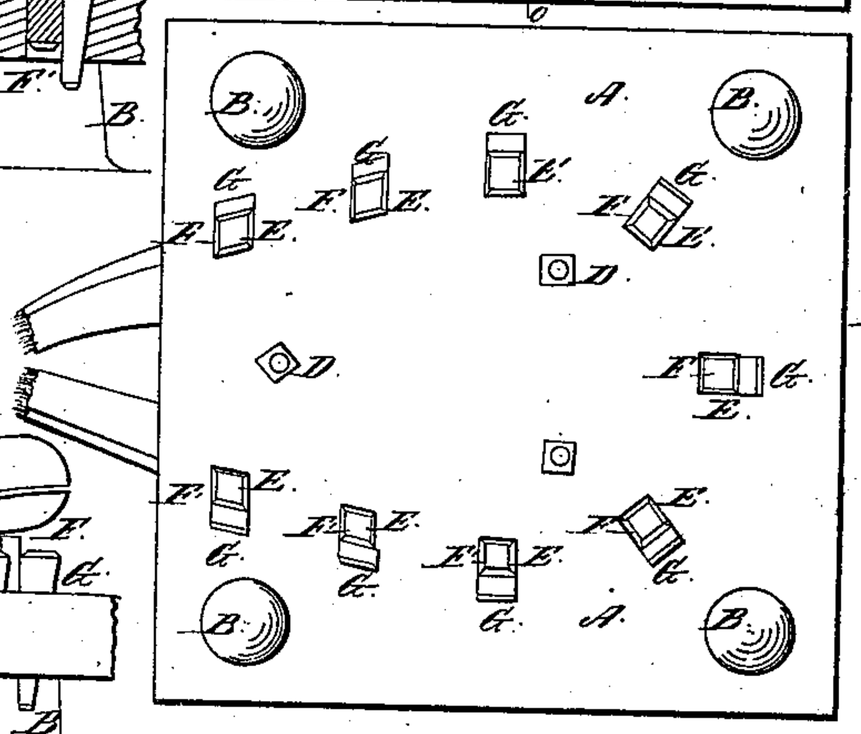


Fig. 3.

Fig. 6.

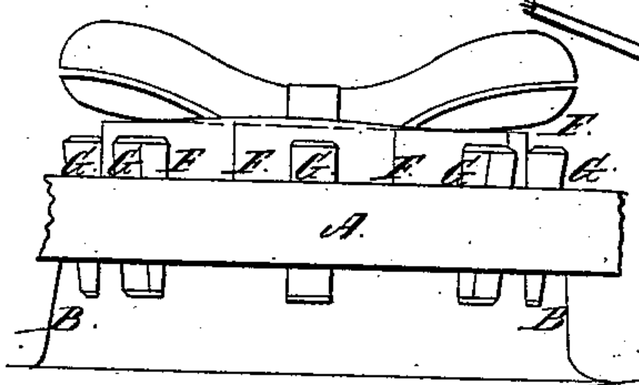
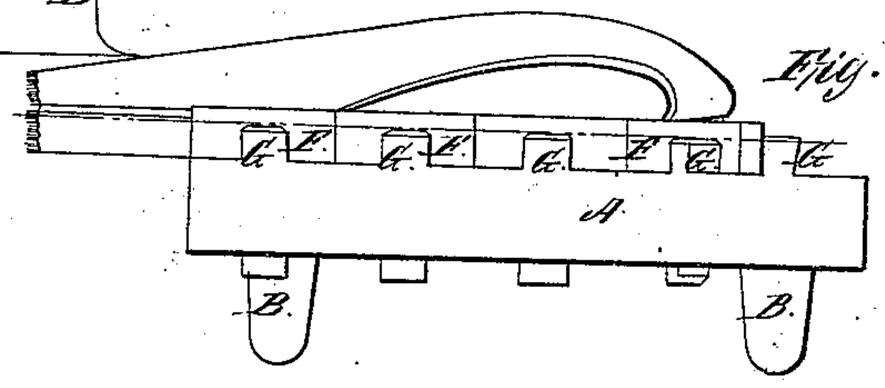


Fig. 4.



UNITED STATES PATENT OFFICE.

WILLIAM CRISWELL, OF BUTLER, PENNSYLVANIA.

MACHINE TO MANUFACTURE HORSE-COLLARS.

Specification of Letters Patent No. 6,804, dated October 16, 1849.

To all whom it may concern:

Be it known that I, WILLIAM CRISWELL, of Butler, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in a Machine for Bending Horse-Collars, reference being had to the annexed drawings of the same making part of this specification.

Figure 1, is a plan or top view of the central forming block, and bench, the collar being represented as bent and confined thereto. Fig. 2 is a horizontal section of the same at the dotted line *x*, *x*, of Fig. 4. Fig. 3, is a plan of the bench inverted, showing the apertures therein. Fig. 4 is a side elevation. Fig. 5 is a vertical transverse section at the line *o*, *o*, of Fig. 2. Fig. 6 is an end elevation. Fig. 7, is a perspective view of the segmental forming blocks.

The nature of my invention consists in bending and holding collars around and against the central former, by means of segmental slides, and keys, inserted into apertures, in the bench, to do away with the present mode of bending and holding the collars against the former by the hands of the operator and a mallet.

Similar letters in the several figures refer to corresponding parts.

The bench A or frame, upon which the central forming block is secured is of the required form, diameter, and dimensions of the intended collar; constructed of thick board or plank and supported upon three or four legs B.

C, is the central forming block around the edge of which the collar is pressed and secured by means of segmental blocks. This central forming block is of the required shape and size to suit the collars to be formed, made concave around its circumference or edge to admit the rim of the collar and is secured to the bench or frame A by three screw bolts D.

E, are a series of apertures made in the frame or bench A around and near the circumference of the forming block, at equal distances apart, and are for the purpose of admitting the shanks F′, or vertical portions of the segmental blocks, and keys for confining the same therein.

F, are a series of segmental blocks, of the same number as the apertures in the bench, and are of nearly equal length, each being of a curve corresponding with the side of the central former to which it is adjacent. These segmental blocks are arranged around the central former so as to make a figure the shape of the circumference of said central former, the ends of their upper portions nearly meeting each other, and between the concave sides of which, and central former the collar is secured. They are made of a form resembling the letter **T**, their upper or horizontal portions, being made the segment of a circle on their inner sides, corresponding with the cavity around the edge of the central former in which the rim of the collar is formed, and also with the oval curvature of the former and having their shanks or vertical portions F′, inserted into the apertures made in the top of the frame or bench, and secured and pressed against the collar by means of wedge shaped keys G also inserted into the apertures, against the outside of the segmental blocks.

The manner of using this machine is as follows,—The collar being stuffed in the usual manner, is placed upon the frame or bench and against the central former, the segmental block F′, is then inserted into the aperture in the frame and secured by a wedge shaped key.

The collar is then pressed and drawn against the sides of the central former by means of the hands, and the segmental blocks and keys inserted and secured into their respective apertures, in the bench and in this manner the collar is bent, pressed, and held against the former, C, a sufficient length of time to cause the collar to retain its required shape when removed from the machine.

The use of the segmental sliding formers and keys enables the operators to bend the collar and give the rim the proper shape, which is done in less time and with less labor than is required by the old plan of bending by hand; after which the collar is finally shaped upon an oval shaping block in the usual manner.

What I claim as my invention and desire to secure by Letters Patent is—

1. The combination of the **T** shaped segmental sliding forming blocks F, with the central oval shaped forming block C, and mortised bench A into which they are secured, said sliding segmental forming blocks

being pressed against the rim of the collar, by means of keys in the manner herein fully set forth.

2. The oval shaped former and bench are not claimed individually or in connection as they have been heretofore used for making horse collars in combination with a rope and windlass for drawing the collar around the block, the before described machine being principally designed for bending and holding the rim of the collar to its required form—the shaping of the rest of the collar being done in the usual manner.

In testimony whereof I have hereunto signed my name, before two subscribing witnesses.

WM. CRISWELL.

Witnesses:
P. D. TAYLOR,
SAMUEL MOHLER.