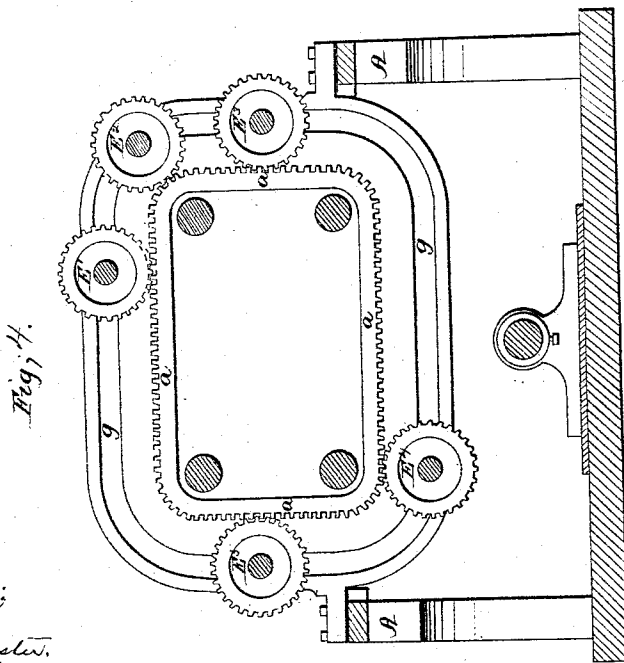
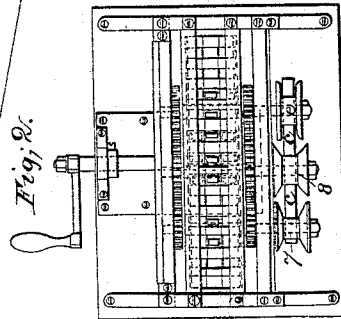
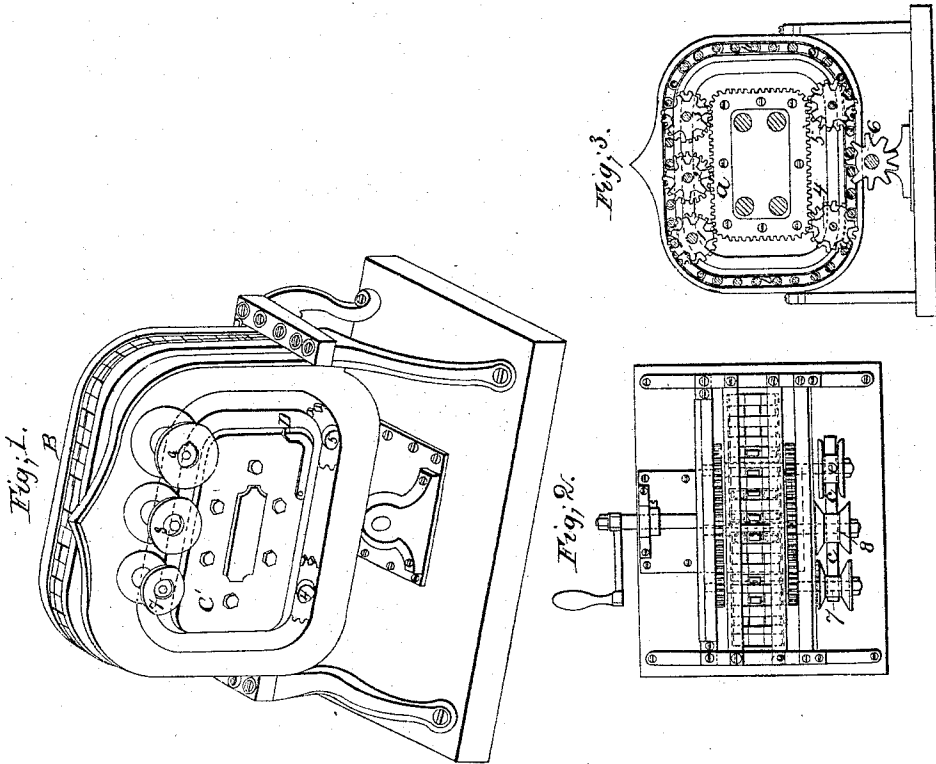


H. Havell.

Leather Worker.

N^o 83,852.

Patented Nov. 10, 1868.



Witnesses;
Geo W Sylvester.
Henry D. Havell.

Inventor;
Henry Havell

United States Patent Office.

HENRY HAVELL, OF NEWARK, NEW JERSEY.

Letters Patent No. 83,852, dated November 10, 1868; antedated October 24, 1868.

IMPROVED MACHINE FOR BENDING CARPET-BAG FRAMES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY HAVELL, of Newark, Essex county, New Jersey, have invented a new, useful, and novel Machine for Making Frames for Travelling-Bags out of any Ductile Metallic Substance; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters and figures of reference marked thereon.

The nature of my invention consists in constructing a machine so that any ductile metal can be bent to any required angle or curve, necessary to the construction of a "travelling-bag frame," by means of a shaped former, around which the metal is wrapped by means of mechanical appliances, such as a movable roller, shaped as desired, and rotating around the "shaped former," imparting to the metal the form given by rollers and the "shaped former."

I first construct two castings, on which a rack is cast, in which rack-wheels, 1, 2, 3, 4, 5, run intermediate the racks *a* and chain B.

The chain B transmits the motion and power from driving-pinion 6, situated under chain B.

Rack-wheels 1, 2, 3, 4, 5 rest on the racks *a* of both face-plates.

The racks have an equal number of teeth, and the rack-wheels, rolling on them, serve the double purpose of keeping chain B in its working position on pinion 6, but also to transmit power to the working-rollers 7, 8, 9.

These two face-plates are bolted together, and on the external surface of one of them I place a former, C, shaped to correspond to the "frame" to be bent, and having, in its outer rim, a jaw, D, to catch the metal to be bent, and to hold it in position until it is finished by the working-rollers 7, 8, 9.

I then construct a roller, or any number of rollers, (such as 7, 8, 9,) peculiar in form, but so adapted to receive the metal flat or otherwise, gradually bending the metal as they pass over and around it, and, by their impact, shape it to the former C.

In some instances, it will be found that one working-roller will sufficiently shape the metal to former C, and, in other instances, the quality and thickness, and

the shape desired to be formed, may demand the use of one or more "working-rollers."

Fig. 1 represents working-rollers 7, 8, 9 attached. They are so constructed and attached to rack-wheels 1, 2, 3, that they can be removed at pleasure, and others substituted; or one or two can be removed, leaving one to perform its office of moulding the metal around former C.

Any number of rack-wheels can be inserted in the frames on the racks, to which can be attached working-rollers, if it become desirable.

The journals of rack-wheels 1, 2, 3, 4, 5 run in the groove *g*, which guides the working-rollers 7, 8, 9, as they revolve, in their course on racks *a*, around the former C, and to rack-wheels 1, 2, 3, 4, 5, as they revolve on rack *a*.

Figure 1 represents the machine complete in all its parts. A is a frame, to which face-plates are bolted, holding the several parts together; C is the former, around which the metal is bent; D is the jaw in the "former;" 4 and 5 are rack-wheels; 7, 8, 9 are working-rollers, revolving round the former; S is the shaft of driving-pinion 6; B is the chain, which rides on rack-wheels 1, 2, 3, 4, 5, shown in fig. 3.

Figure 2 is a top view of machine, exhibiting only one more part than shown in fig. 1, viz, rack *a*.

Figure 3 exhibits internal view of machine. A is the face-plate; *b*, the chain, wrapping rack-wheels 1, 2, 3, 4, 5; *a* is the rack, on which rack-wheels 1, 2, 3, 4, 5 roll; *g* is the groove, in which the journals of rack-wheels 1, 2, 3, 4, 5 revolve; 6 is the driving-pinion, which supplies power to chain B, the connecting-link or belt of power to rack-wheels 1, 2, 3, to which are attached working-rollers 7, 8, 9.

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

An improved machine for making travelling-bag frames, consisting of its several parts, herein described, combined and arranged substantially as described, and for the purposes set forth.

HENRY HAVELL.

Witnesses:

GEO. W. SYLVESTER,
HENRY D. HAVELL.