

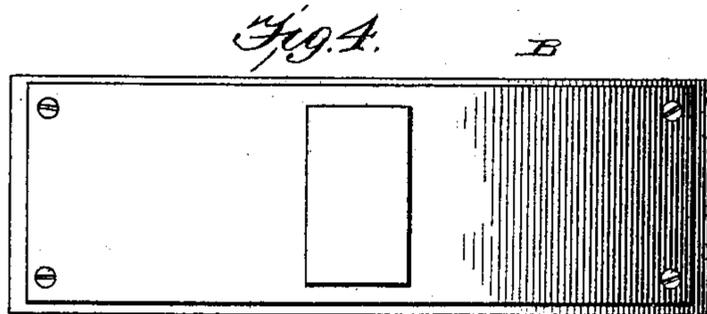
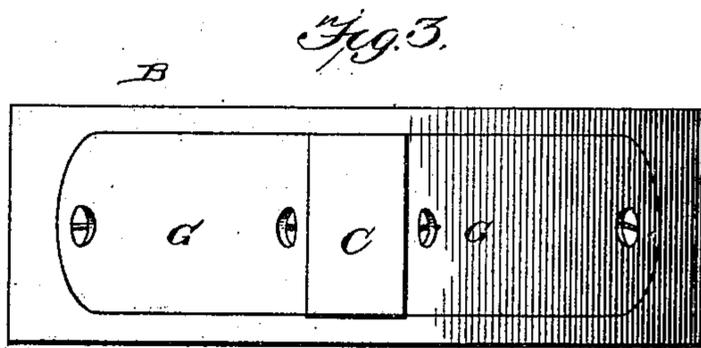
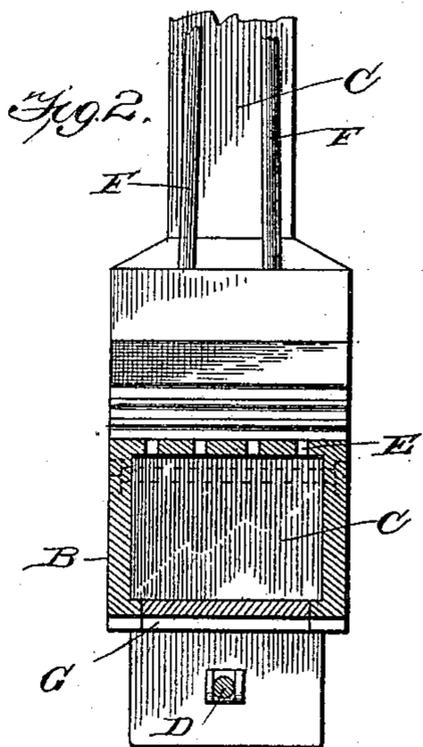
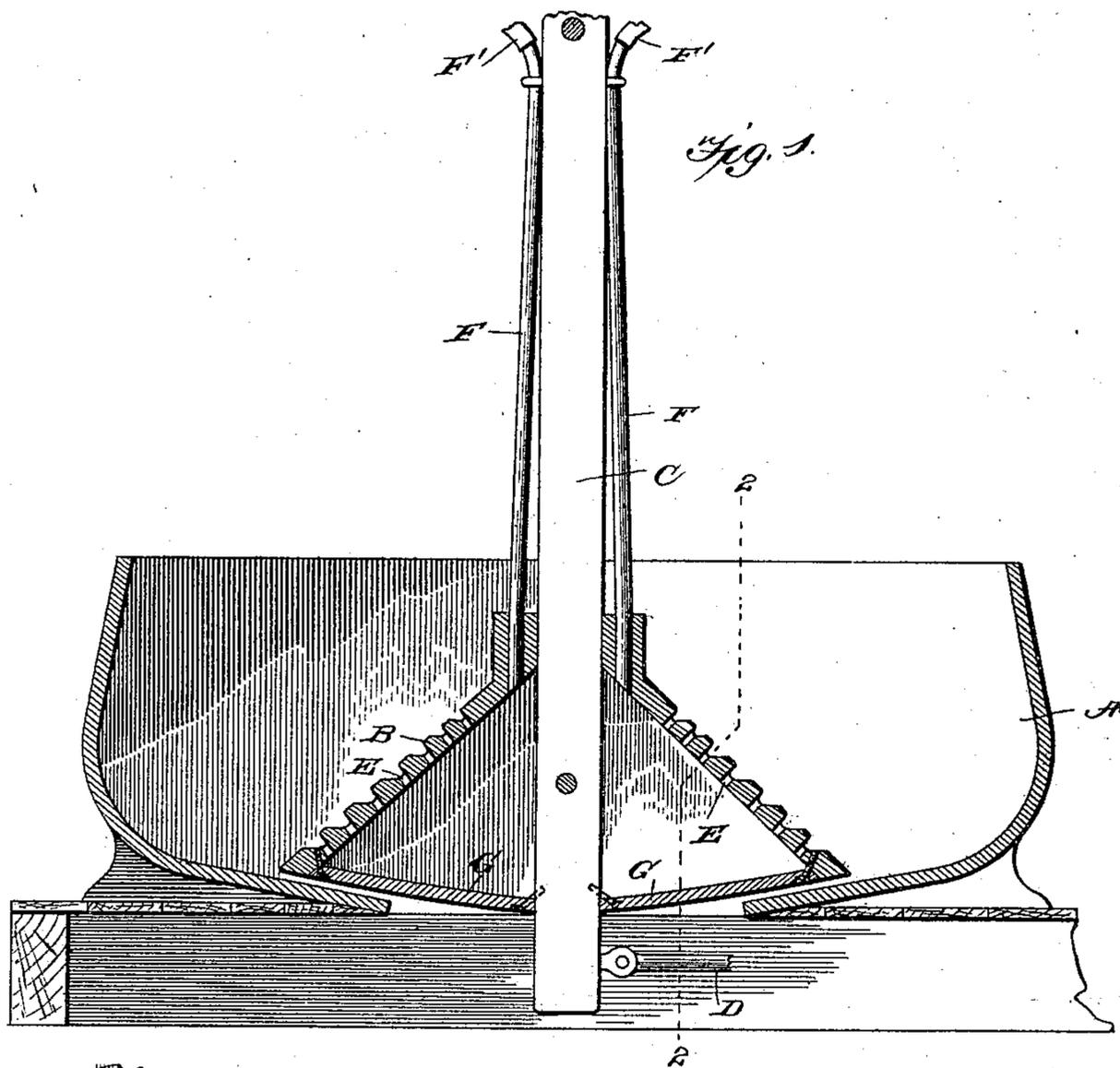
No. 648,149.

Patented Apr. 24, 1900.

D. HAYS.  
APPARATUS FOR MANUFACTURING LEATHER.

(Application filed Oct. 21, 1899.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

DANIEL HAYS, OF GLOVERSVILLE, NEW YORK.

## APPARATUS FOR MANUFACTURING LEATHER.

SPECIFICATION forming part of Letters Patent No. 648,149, dated April 24, 1900.

Application filed October 21, 1899. Serial No. 734,318. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL HAYS, a citizen of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a new and useful Improvement in Apparatus for Manufacturing Leather, of which the following is a specification.

This invention relates generally to a fulling and drying apparatus used in the manufacture of leather, and particularly to an improved construction whereby heated air is led into the drying and fulling vat and forced through the skins under operation.

This invention is an improvement upon the apparatuses patented by me December 14, 1897, Nos. 595,303 and 595,304.

The present invention consists, essentially, in providing air-pipes which lead into the hammer and in forcing air therethrough out through a series of openings or passages produced in the faces of the hammer.

The invention consists also in providing means whereby the common form of hammer may be employed for carrying out my invention.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the appended claims.

In the drawings forming a part of this specification, Figure 1 is a view, partly in section, showing the practical application of my invention. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a bottom plan view of the hammer, and Fig. 4 is a view showing a slightly-modified construction.

In carrying out my invention I employ a vat or stock A, which is constructed in the usual or in any manner desired, and operating in this vat in the usual manner is the hammer B, said hammer being constructed of iron, as usual, and operated by means of the beam C, which passes centrally through the hammer and is pivoted at its upper end and connected at its lower end to the operating-pitman D. The hammer B is usually cast hollow with a bottom opening, the top part having a central opening only to permit the insertion of the central beam C.

In the present invention the hammering-

faces of the hammer are provided with a series of openings or passages E, and leading into the hollow hammer at the upper end are the pipes F, through which hot air is forced, said pipes F being connected at their upper ends to the main or branch air-supply pipes by means of flexible pipe connections F', so that the hammer can oscillate freely without interfering with the passage of the air to the hammer. It is my intention to force the air into the hammer out through the openings or passages in the faces, so that the heated air will come into immediate contact with the skins which are being worked by the said hammer, and in order to force the air through the openings or passages E, I close the bottom of the hammer upon each side of the central beam by means of a suitable plug G, which plug may be inserted or removed at will. It will of course be understood that when the plug is inserted and the bottom closed the air must necessarily pass out through the openings or passages E. By having the plug removable any oil, dirt, or other foreign substances which may accumulate in the hammer can be cleared therefrom.

In Fig. 4 I have shown a slight modification in which the plate is secured to the bottom of the hammer for the purpose of closing the same; but it will be understood that the bottom of the hammer may be closed in any suitable manner which will prevent the air escaping and by means of which the said heated air will be forced through the openings or passages E, so as to be brought directly into contact with the skins which are being worked by the hammer.

It will thus be seen that I provide an exceedingly simple and efficient means of introducing heated air into the vat or stock and forcing the same through the skins, and it will furthermore be noted that the ordinary hammer now in use can be employed for this purpose by making slight alterations and additions thereto.

While I have illustrated and described what to me appears to be the best means of accomplishing the desired result, I do not wish to be understood as limiting myself to the exact details of construction and arrangement of parts, but hold that such slight changes and altera-

tions as would properly come within the scope of my invention might be made without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In an apparatus of the kind described, the hammer having air-pipes leading into the same, said hammer having openings or passages through which the air is discharged into the vats, substantially as shown and described.

2. In an apparatus of the kind described, the hollow hammer having openings or passages produced in the faces thereof, and the air-supply pipes leading into the said hammer, substantially as shown and described.

3. In an apparatus of the kind described, the hollow hammer having openings or passages produced in the faces thereof, the air-supply pipes leading into the said hammer,

and the flexible devices connecting the air-supply pipes with the main supply-pipe, substantially as and for the purposes described.

4. In an apparatus of the kind described, the hollow hammer having openings or passages in the faces thereof, the air-supply pipes leading into the said hammer and means for closing the bottom of the said hammer, substantially as shown and described.

5. In an apparatus of the kind described, the hollow hammer having openings or passages in the faces thereof, the air-supply pipes leading into the said hammer, the flexible connections arranged at the upper ends of the said air-pipes, and the plugs for closing the bottom of the said hammer, substantially as and for the purpose described.

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