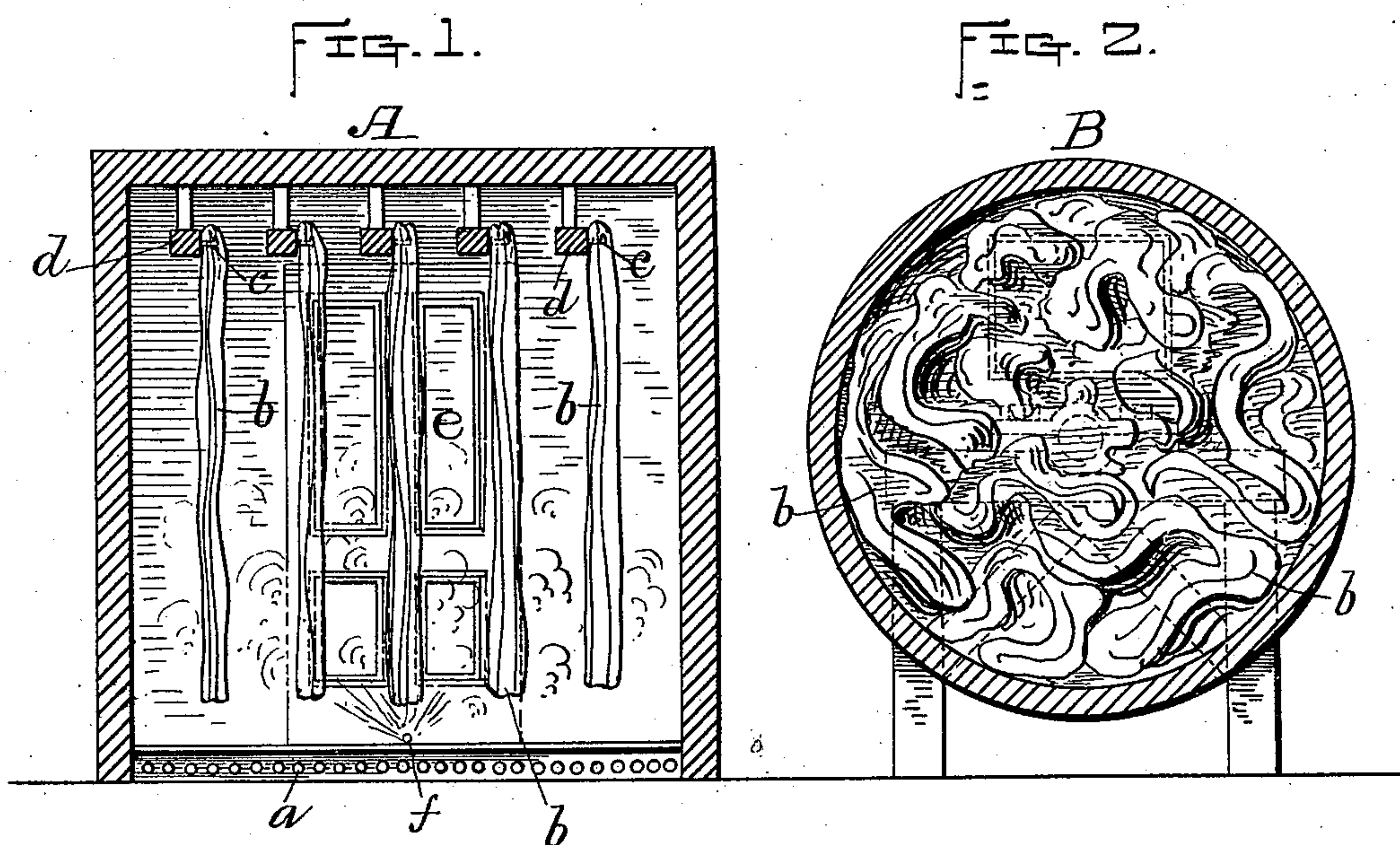


(No Model.)

B. P. BRADFORD.
ART OF STUFFING LEATHER.

No. 547,985.

Patented Oct. 15, 1895.



Witnesses;

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Inventor;

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By A. A. Parker. Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN P. BRADFORD, OF WORCESTER, MASSACHUSETTS.

ART OF STUFFING LEATHER.

SPECIFICATION forming part of Letters Patent No. 547,985, dated October 15, 1895.

Application filed March 27, 1895. Serial No. 543,345. (No specimens.)

To all whom it may concern:

Be it known that I, BENJAMIN P. BRADFORD, of the city and county of Worcester and State of Massachusetts, have invented a new and
5 useful Improvement in the Art of Stuffing Leather; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this speci-
10 fication, and in which—

Figure 1 represents a leather-heating chamber provided with steam heating-pipes for heating said chamber to the desired temperature and a small perforated pipe for dis-
15 charging a small amount of live steam into the chamber to keep the leather contained therein of the proper degree of moisture, as will be hereinafter more fully described; and Fig. 2 represents a revolving stuffing wheel or
20 drum, which may be of ordinary construction, for permeating the leather by absorption with grease and other stuffing materials in the usual way.

My invention relates to the art or process of
25 stuffing tanned leather after having been "scoured," to render the same soft and pliable.

The object of said invention is to reduce the time required for effecting said stuffing pro-
30 cess over the old ways heretofore employed, while at the same time producing a superior grade of stock; and it consists in first heating the leather prior to being stuffed in a heating-chamber separate from the usual revolving stuffing-drum provided with means for
35 maintaining a certain degree of heat and moisture of the temperature therein, and then while still hot placing said leather in an ordinary heated revolving stuffing wheel or drum
40 with the grease or other material used for stuffing, as and for the purpose hereinafter more fully set forth.

In order that others skilled in the art to which my invention appertains may better
45 understand the nature and purpose thereof, I will now proceed to describe it more in detail.

In the drawings, A represents the leather-heating chamber, and B the stuffing wheel or
50 drum previously alluded to for carrying out my improved art or process of treating the leather to soften and render the same pliable.

Prior to my invention it has been custom-

ary, as is well known, to place the leather to be treated while cold in the stuffing wheel or drum, which is provided with some kind
55 of heating apparatus for maintaining the desired heat therein. In this instance I have not shown said means for heating, as the special construction of the wheel or drum constitutes no part of my present invention. By
60 said old process of stuffing it is obvious that considerable time is consumed in heating the leather after it is placed in the wheel or drum to the proper consistency to absorb the grease
65 or other stuffing material, and being cold when put in is stiff and unpliable and tends to adhere one piece to another, thereby becoming heated unevenly. Consequently dark spots
70 are produced in the leather, and it is also caused to "break up coarse" in stuffing, thus resulting in an unsatisfactory and inferior
75 grade of leather, having some places soft and pliable while others which were not equally as well acted upon are less pliable and uneven in texture in the finished product.

By my improved process of first heating the leather prior to placing it in the stuffing-drum in the manner which will now be described the above objections are wholly removed, and
80 leather of a uniformly-even texture, pliability, and superior quality is produced, which result I have fully demonstrated in the practical treatment of large quantities of leather.

The heating-chamber A for subjecting the leather to said prior heating process is pro-
85 vided with a suitable number of steam-pipes *a*, arranged at the bottom thereof, over which is preferably placed a sheet-iron or other metal floor to protect said pipes and also to prevent contact of the leather therewith. The
90 pieces of leather *b* to be treated are suspended vertically from suitable hooks *c*, fastened to bars *d*, supported from the ceiling of the heating-chamber, all as is fully shown in Fig. 1 of
95 the drawings. The chamber is provided with a suitable door *e* in one side thereof for the admission and removal of the leather to be heated. Said chamber is in practice designed to be as near air-tight as possible, in order to retain the original moisture of the leather
100 when put in; but as some of said moisture will be absorbed by the atmosphere in the chamber when the leather is placed therein and more or less air will enter at the joints around

the door I provide means for supplying the slight amount of moisture required to maintain the original moisture of the leather when put in or to add more moisture thereto, if required, by the use of a small steam-pipe *f*, arranged at or near the bottom of the chamber, which is provided with a series of small openings for the live steam to escape through into the heating-chamber, as is also indicated in Fig. 1.

By the above-described method of heating the leather it will at once be apparent that every portion thereof will be uniformly heated and kept moist. Therefore, when placed in said heated moist condition into the usual heated stuffing wheel or drum, the grease or other similar stuffing material at once commences to be absorbed thereby and every part of the leather is quickly and uniformly permeated therewith. Consequently every portion of said leather is soft, pliable, free from dark spots, also of an even texture and uni-

formly-superior quality, and owing to its quick absorption of the stuffing material, as aforesaid, is prevented from breaking up coarse in the stuffing process.

Having now described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The process of stuffing leather which consists in first heating the leather to the required temperature, and then stuffing it in the usual way by heating it in presence of the required stuffing material, substantially as described.

2. The process of stuffing leather which consists in first heating the leather to the required temperature and simultaneously moistening it, and then stuffing it in the usual way by heating it in presence of the required stuffing material, substantially as described.

BENJAMIN P. BRADFORD.

Witnesses:

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