

C. KORN.

Leaching and Tanning Apparatus.

No. 137,004.

Patented March 18, 1873.

Fig. 1.

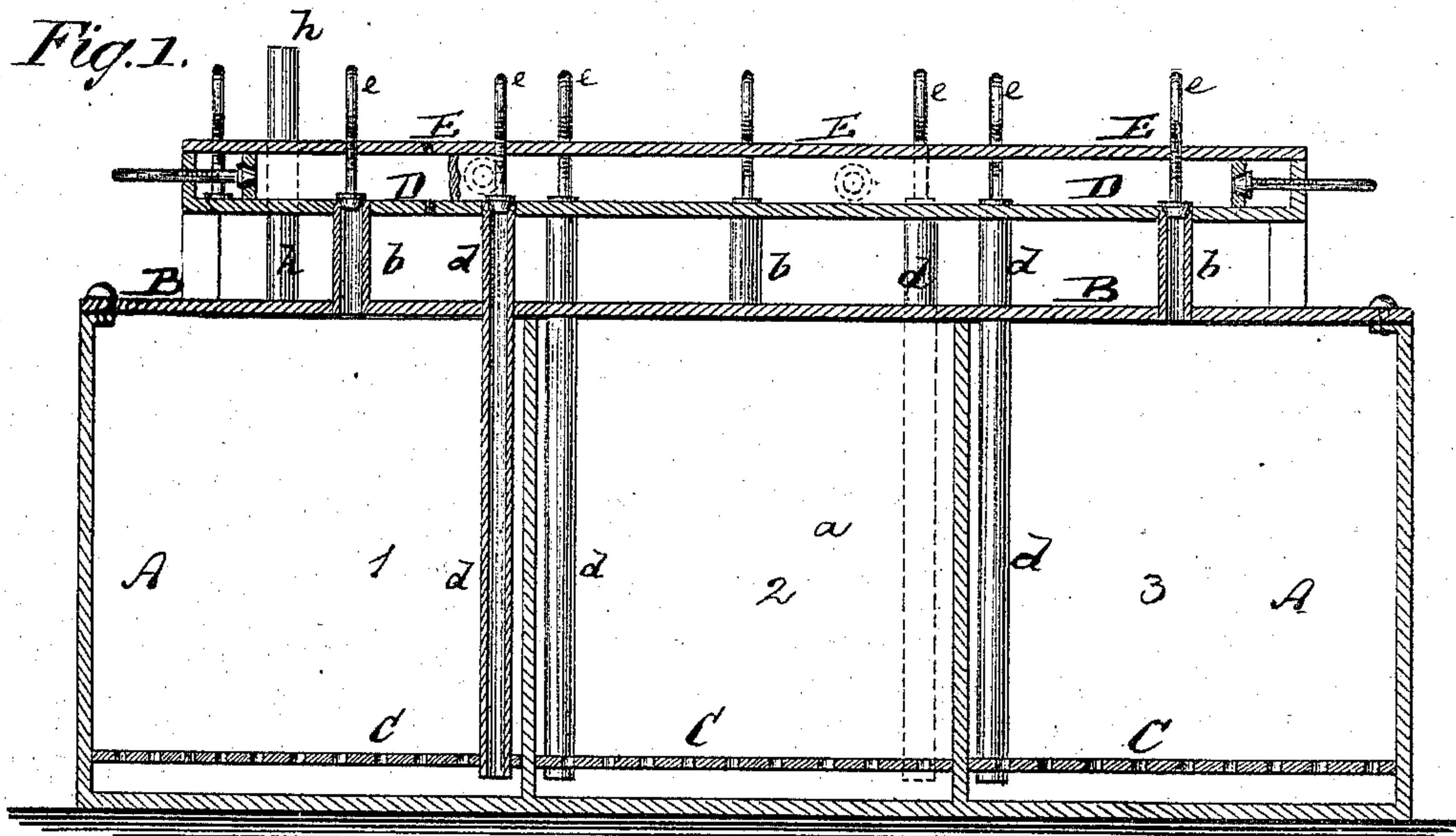
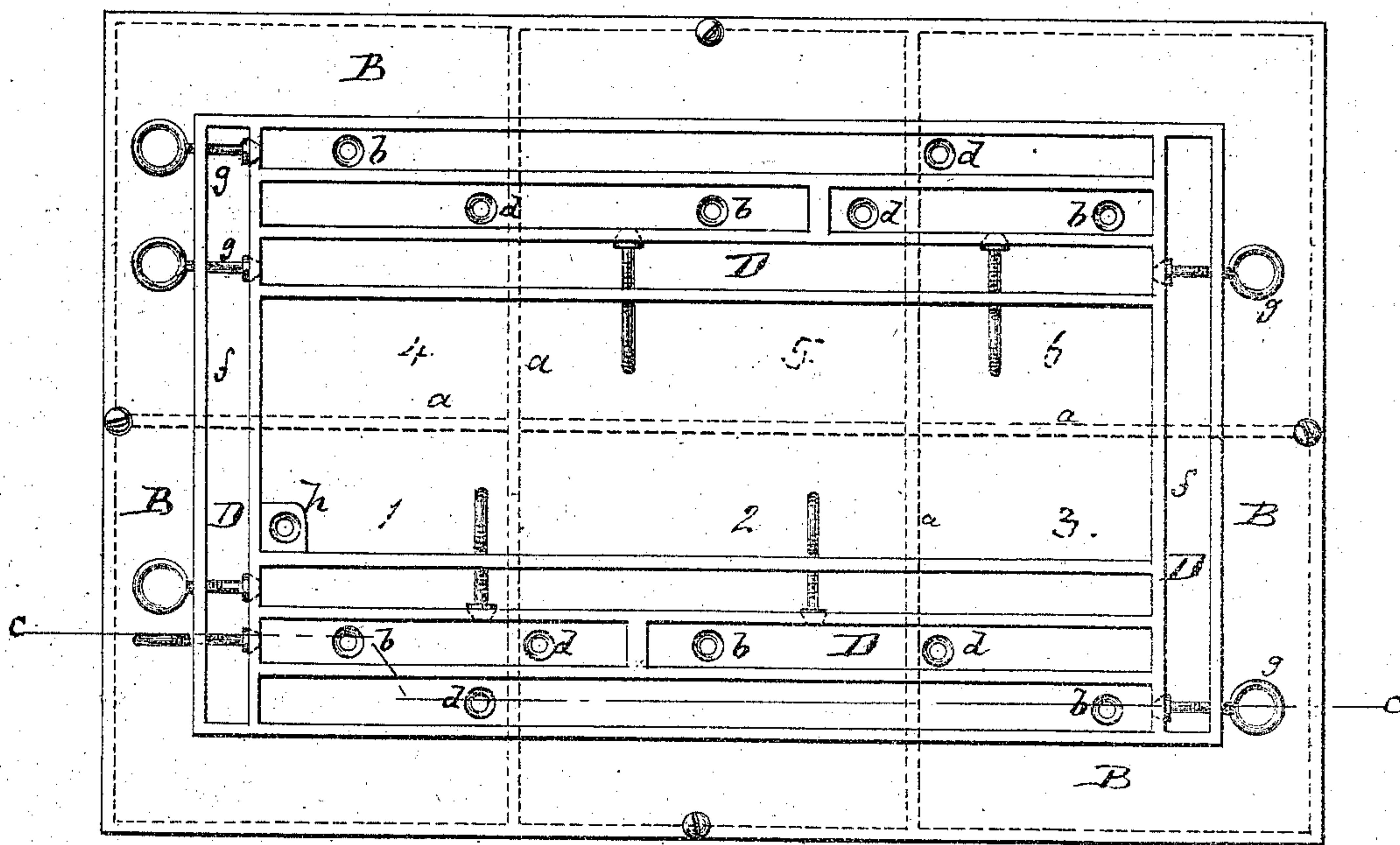


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES KORN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LEACHING AND TANNING APPARATUS.

Specification forming part of Letters Patent No. 137,004, dated March 18, 1873.

To all whom it may concern:

Be it known that I, CHARLES KORN, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Leaching and Tanning Apparatus, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved leaching and tanning apparatus, the line C C, Fig. 2, indicating the plane of section. Fig. 2 is a top view of the same, showing the upper covering removed.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement on the bark-leaching apparatus for which Letters Patent No. 71,765, were granted to me December 3, 1867; and has for its object to permit, in connection with the apparatus described in the aforementioned Letters Patent, the application of pressure to the contents of the same. My present invention consists in applying to the lower reservoir a tight-fitting cover and a similar tight-fitting cover to the upper distributing-chamber or trough, which communicates with the compartments of the lower vessel, so that the leaching or tanning substance may, by a pump or other means, be forced into the apparatus and retained therein under pressure to hasten the process of leaching or tanning, as the case may be.

In the accompanying drawing, the letter A represents the lower box of my improved leaching and tanning apparatus. The same is, by a series of partitions, *a*, that are clearly shown by dotted lines in Fig. 2, divided into six, more or less, chambers, 1, 2, 3, 4, 5, 6, &c. B is the cover of the same, firmly fastened down upon the box, and held thereto by means of screws or otherwise so as to fit tight, or nearly so. C is a perforated false bottom, placed within the box A throughout the several compartments of the same, substantially in the same manner described in my Letters Patent. D is a trough or distributing channel or tube placed upon the cover B above the box A, and connected with each chamber by means of two pipes, *b d*. The shorter pipes *b* extend from the bottom of the trough or conduit D merely through the cover B, while the longer pipes *d* extend from the bottom of the trough D down through the cover B, and through the perforated bottom C of

the box A. Such tubular connection *b d* extends from the trough to each chamber of the vessel A. Suitable valves or cocks *e e* are arranged in the trough for closing either one or more of the several pipes *b* and *d*, and the trough is furthermore provided with transverse connections *f*, which can be thrown out of action by means of cocks or valves *g*, or into action, as may be desired, to confine the circulation to a few of the chambers in the vessel A, or to permit it to be carried on through more or all of them. *h* is the inlet-pipe connecting with a suitable force-pump or other forcing apparatus. For leaching purposes the liquid is allowed to enter the chambers of the vessel through the short pipes *b*, and is forced out from the same back into the trough through the long pipes *d*. But for tanning, the long pipes are to be the receiving and the shorter pipes the discharging conduits of the liquid. The trough D is so subdivided by its several partitions that the liquid entering it from one of the compartments of the vessel A will be conducted by said trough into another compartment of the said vessel, and so on, to establish the desired circulation. E is a cover, placed over the trough, for closing the same from above, allowing, therefore, in connection with the cover B, the application of the desired pressure.

I have found on repeated experiments that the process of tanning, and also that of leaching, can be much more rapidly carried on when the vessel containing the liquid is closed and the liquid applied under pressure, than when said vessel is opened and the liquid only permitted to act by its own weight and chemical effect. For this reason I consider my present improvement to be of great advantage to tanners, inasmuch as it permits the process of tanning to be carried on much more rapidly and efficiently than before.

Claims.

1. The combination of the vessel A and of the distributing-trough D with the cover B and pipes *b d*, as set forth.
2. The cover E and trough D in combination with the vessel A, cover B, and pipes *b d*, as specified.

Witnesses:

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