

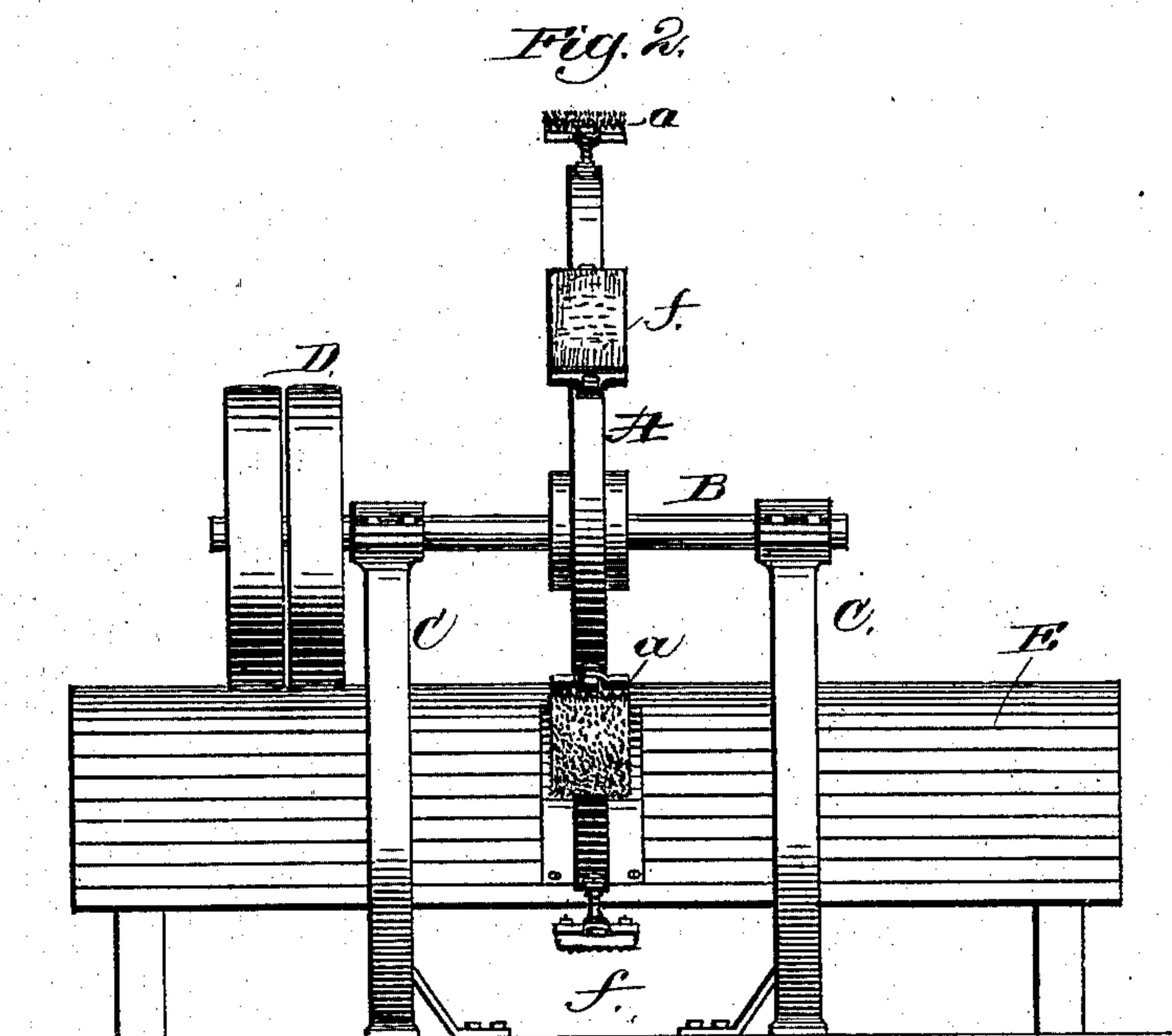
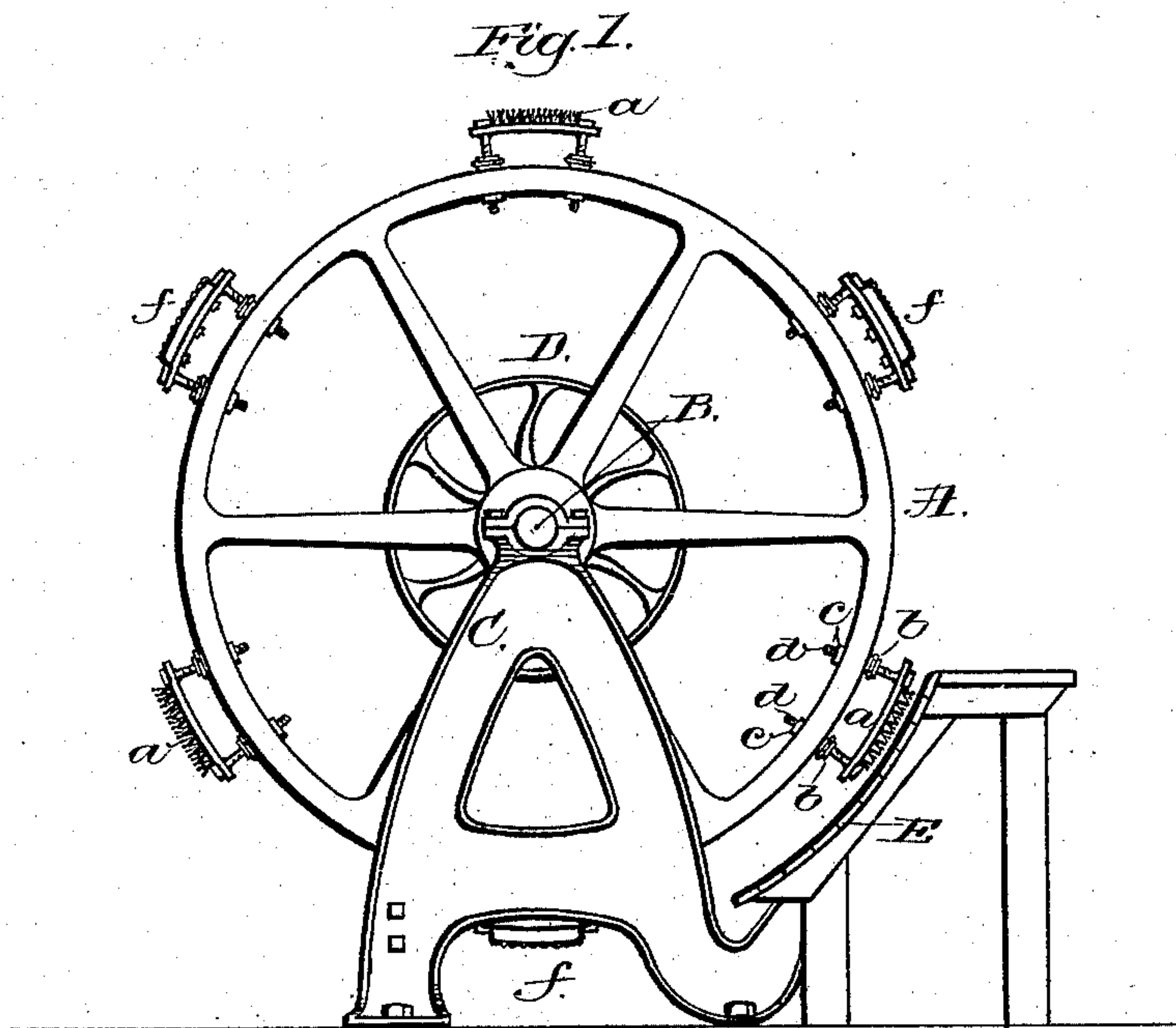
(No Model.)

C. B. BRYANT.

MACHINE FOR SMUTTING LEATHER.

No. 272,025.

Patented Feb. 13, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES B. BRYANT, OF WOBURN, MASSACHUSETTS.

MACHINE FOR SMUTTING LEATHER.

SPECIFICATION forming part of Letters Patent No. 272,025, dated February 13, 1883.

Application filed October 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. BRYANT, of Woburn, county of Middlesex, State of Massachusetts, have invented an Improvement in Machines for Smutting Leather, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the manufacture of leather, after the skin has been tanned, it is removed from the tanning-liquor and shaved, and subsequently, while wet, is scoured or washed to remove from it the dirt. Scouring brings the leather into condition to be oiled or stuffed, after which, the leather having been dried, it is whitened, and then grained and "boarded," as it is called, and thereafter blacked, and after blacking, the leather, to be fully finished, will be "smutted."

My invention has for its object the production of a machine for "smutting" leather, smutting being one of the processes or steps for the fine or better finishing of leather. That class of leather, calf-skin, &c., wherein the black face produced by or due to the application of lamp-black and an oleaginous material, is most commonly used in the manufacture of boots and shoes and other articles of leather without smutting, and the face of the leather shows a dull black the material of which easily cracks off; but in some instances this black face is rubbed by a cloth and then by hand to rub the black into the leather and remove all surplus black therefrom, so that the black color will not rub off or smut when handling the leather. The process of smutting by hand—the only way it has been done up to the present time—is slow and expensive. In accordance with my invention, I take a hide or side of leather, blackened by machine or by hand, and subject it to the action of rubbers or smutters and of brushes. The rubbers or smutters, by their friction against the leather, roll or rub up the black film or "skin," as it may be called, on the surface of the leather into small minute crumb-like particles, which are subsequently swept off or detached from the leather by the brushes.

Figure 1 represents in side elevation an apparatus embodying my invention, and Fig. 2 a view of the same from the left of Fig. 1.

Referring to the drawings, A represents a wheel or drum on a shaft, B, having its bearings in standards C, the shaft being driven by a belt on the fast pulley D.

The drum or cylinder A has attached to it a series of brushes, *a a*, the latter being shown as made adjustable with relation to the cylinder and the leather-supporting surface E by nuts *b c* on bolts *d*, as will be understood from the drawings, so that the brushes may be made to act properly on the face of the leather, according to its thickness. Between the series of brushes, and preferably adjustably mounted on the said cylinder A, is a series of rubbers or smutters, *f*, preferably composed of some sort of strong fabric. I have used with good results pieces of Brussels carpet, and I might employ for the rubbers or smutters either a fabric or a finer and softer brush than the brush *a*.

The leather, after being blacked in the usual way, presents a dull-black appearance, and there is left upon the surface of the leather an oleaginous black film or skin, which should be removed, or else the same will smut and crack off when the leather is being handled, or else will gum. In fact, the removal of the outside film improves the leather in every way, and enables the same to be finished more readily. The face of a hide or skin from which the dull-black film has been removed will appear bright and glossy, will not black the hand when the leather is being handled, will not gum, and will readily take further finish, such as sizing, &c. This film or skin, to remove it properly, must first be rubbed or broken up into small crumb-like particles. This I have done by the rubbers or smutters *f*, before referred to, which, acting against the blackened face of the leather held on the leather-support E, rub or roll up the said film or skin into small crumb-like particles, which are subsequently swept off or removed from the leather by the brushes *a*. The series of brushes *a* used alone would not detach the small crumb-like particles of lamp-black and oil and leave the black face of the leather clean and bright. The cylinder or drum rotates at a speed sufficiently slow to enable the attendant to move the leather a little horizontally between the action on it of a rubber or smutter and a brush, so

that the different portions of the blackened face of the leather will be acted upon in succession by the rubbers and brushes.

The machine herein described operates to perform the work required of it at a very rapid rate as compared with hand-work, and does its work even better than can be done by hand, improves the quality of the leather, and enables it to be sold for very considerable more than the ordinary blacked leather which is not subsequently rubbed and finished as stated.

Prior to this my invention the blackened face of leather, having a film or skin of lamp-black and oleaginous material, as described, has never, to my knowledge, been finished by mechanism.

I do not broadly claim a brush to operate upon the surface of a hide or skin of leather, as I am aware that a cylinder having brushes

and stones alternating has been employed to scour leather when wet.

I claim—

In a smutting-machine, or a machine to clean and finish the oleaginous blackened face of leather, a support for the leather, and a series of rubbers or smutters to rub or roll up the oleaginous film or skin thereon, as described, combined with a series of brushes or cleaners to sweep, detach, or wipe off the particles loosened by the rubbers or smutters, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES B. BRYANT.

Witnesses:

G. W. GREGORY,
B. J. NOYES.