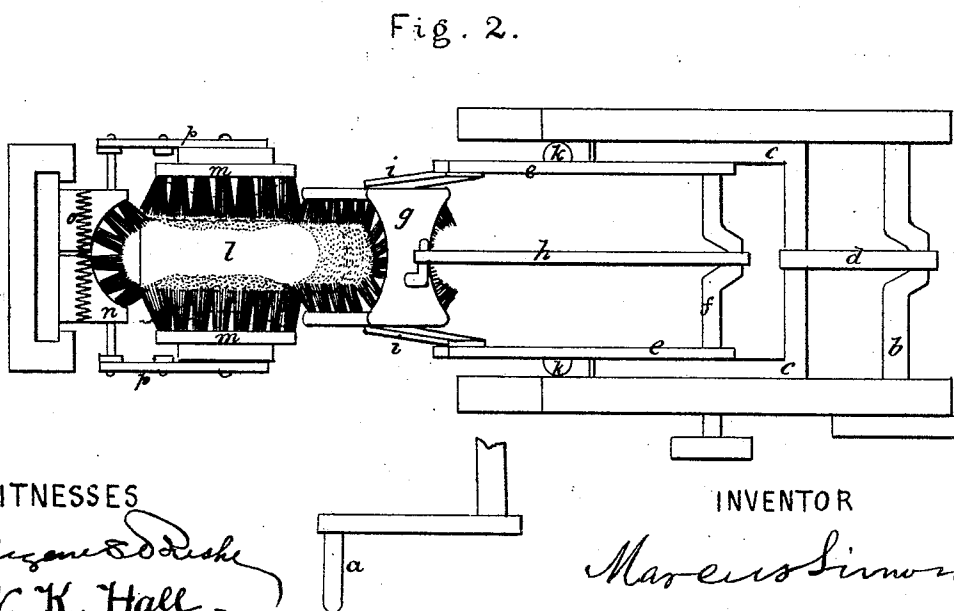
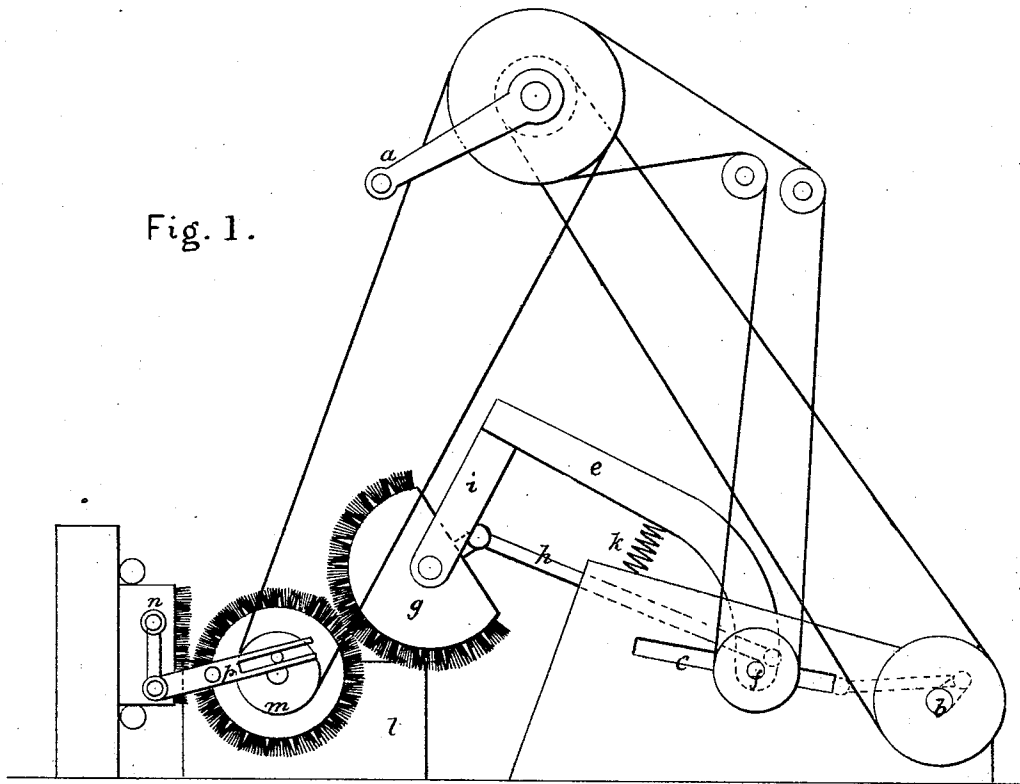


M. SIMON.
Shoe Brushing-Machines.

No. 155,112.

Patented Sept. 15, 1874.



UNITED STATES PATENT OFFICE.

MARCUS SIMON, OF NEW YORK, N. Y.

IMPROVEMENT IN SHOE-BRUSHING MACHINES.

Specification forming part of Letters Patent No. **155,112**, dated September 15, 1874; application filed January 17, 1874.

To all whom it may concern:

Be it known that I, MARCUS SIMON, of New York, in the county and State of New York, have invented certain new and useful Improvements in Machinery for Brushing Boots and Shoes, of which the following is a specification:

The said improvements relate to machines for cleaning and polishing boots and shoes; and they consist in improved means for operating the front and most important brush with a double motion, which is compounded of a reciprocating motion up and down the front of the boot, and of a rotary motion on its own axis, that may be completely continuous, or partial in alternate directions.

To effect the self-adjustment of the brushes within reasonable limits they are made in pairs, that are held together by springs that yield, as may be required. The arms that carry the front brush or pair of brushes are supported by a frame that is moved to and fro by the operation of the motive power, and it is also caused to revolve on its axis by an additional crank, which may, if preferred, be so applied that the rotary motion will be partial and reciprocating.

To enable others skilled in the art to which my invention appertains to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

Figure 1 is a side elevation, indicating the arrangement of the parts which I prefer to adopt. Fig. 2 is a plan of the same.

The handle *a*, through belts or gearing, drives the crank-shaft *b*, that works the frame *c* by the rod *d*. The swinging arms *e* are jointed to the frame *c* by the shaft *f*, which is

also driven from the motive power, and has a crank that rocks the brush *g* on its centers by means of the rod *h*. A pulley on the shaft *f*, outside of the frame, might be connected with a similar pulley on the brush-center, to cause the latter to revolve. The arms *i*, by which the brush is hung on the swinging arms *e*, are of spring-steel, or other elastic material, that permits the halves of the brush to separate when necessary. The springs *k* hold the front brush *g* down on the boot or shoe that may be in position on the foot-rest *l*. The side brushes *m* are also made to revolve by a belt or gearing from the crank-handle *a*, and they may be mounted to slide and yield on their shaft, if required, by connection with suitable springs. The back brush, *n*, is made in halves, held together by the springs *o*, and it is driven by crank-pins on the back of the side brushes, or their pulley acting through the levers *p* and suitable link-connections.

The machine may be mounted to fold in a box, and it may be fitted with additional brushes driven by the crank-handle, for special purposes of brushing and applying the blacking with self-acting appliances. Arrangements and additions of this character may be made in any suitable manner without interfering with my invention.

I claim—

The combination of the brush *g* with a reciprocating frame, *c*, the swinging arms *e*, and springs *k*, crank-shaft *f*, and rod *h*, by which the brush receives a rotary and reciprocating movement, substantially as described.

MARCUS SIMON.

Witnesses:

EUGENE L. BUSHE,
WM. KEMBLE HALL.