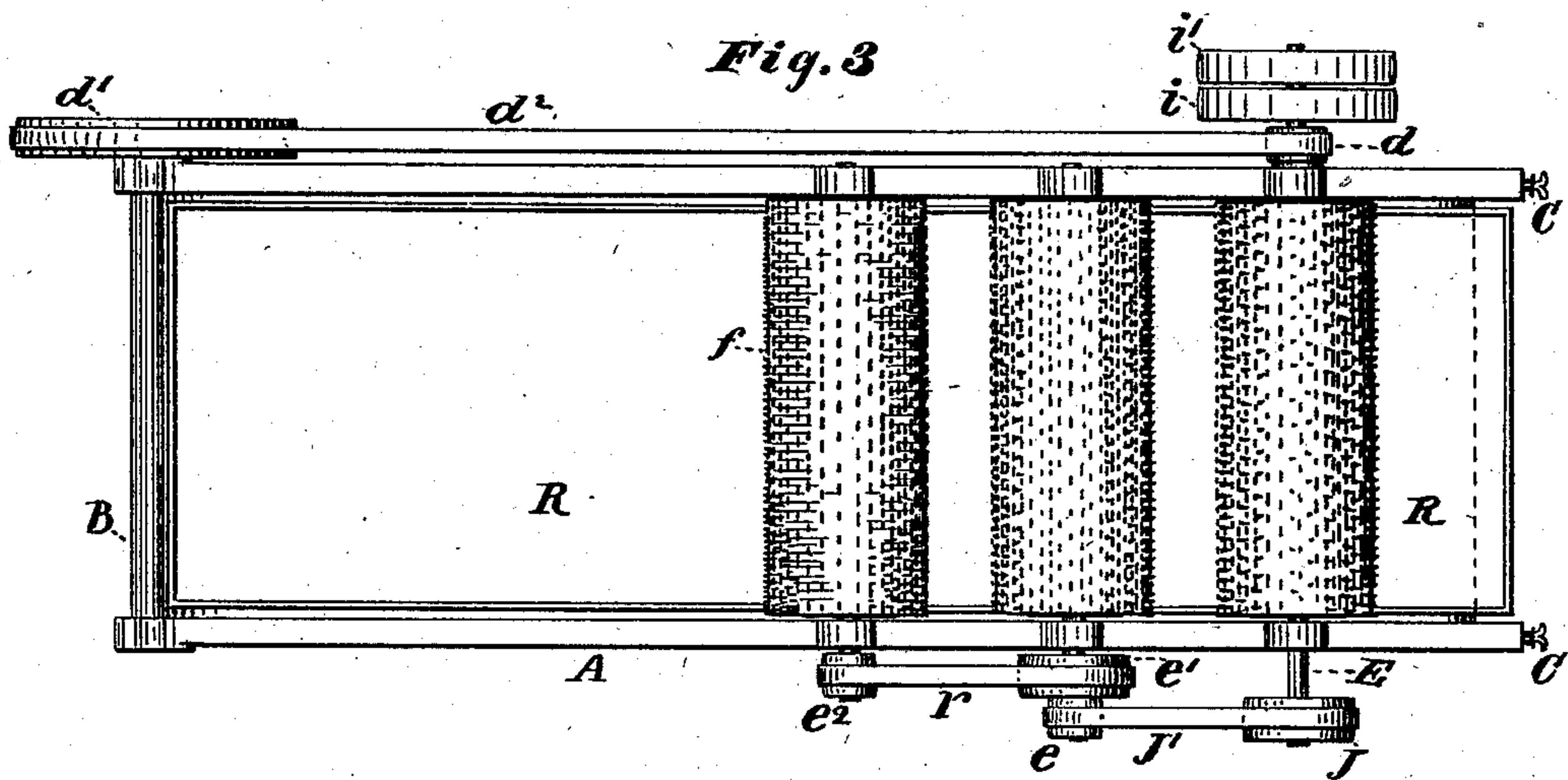
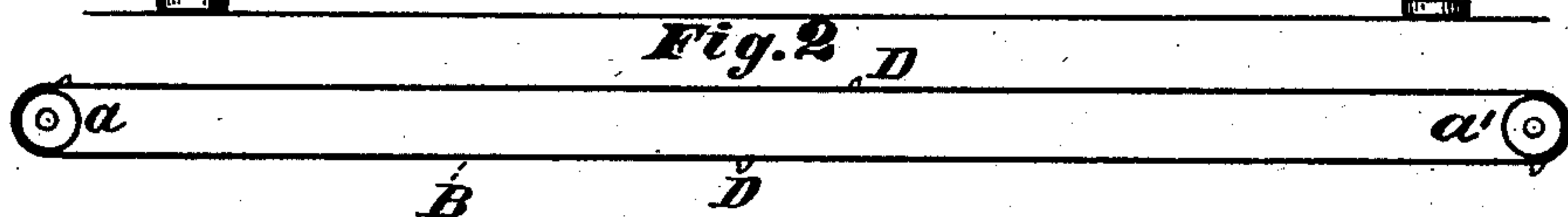
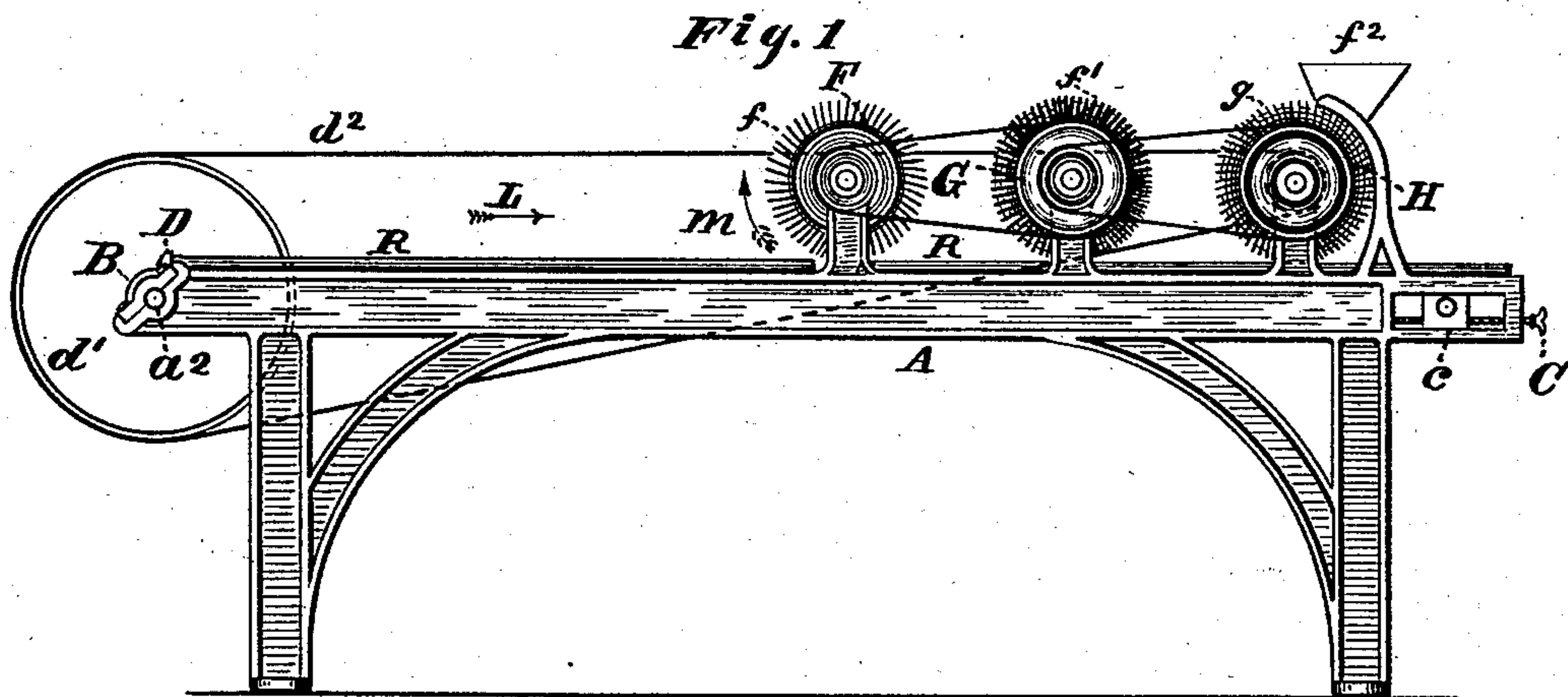


(No Model.)

W. S. OVENS.  
PAN CLEANING MACHINE.

No. 255,113.

Patented Mar. 21, 1882.



Witnesses.

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att'y



# UNITED STATES PATENT OFFICE.

WALTER S. OVENS, OF BUFFALO, NEW YORK, ASSIGNOR TO CHARLES E. BENEDICT AND GEORGE B. WEBSTER, OF SAME PLACE.

## PAN-CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 255,113, dated March 21, 1882.

Application filed August 15, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER S. OVENS, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Cleaning Pans, of which the following is a specification.

The object of my invention is to provide a rapid means for cleaning cracker or cake pans; and it consists of a certain combination of a cleaning roller brush, a greasing roller brush, an oil-reservoir, and an endless apron and operating mechanism, as will be more clearly hereinafter shown by reference to the drawings, in which—

Figure 1 is a side elevation; Fig. 2, an outline showing a side elevation of the endless apron, and Fig. 3 represents a plan or top view of the machine.

A is the frame, which is preferably made of cast-iron, and is held together by the ordinary binding-rods in the usual way.

B represents the endless apron. It is supported on two rollers, *a a'*.

C *c* represent the usual thumb-screw and tightening-box for tightening the endless apron.

D represents the pushing-bars, which should be securely fastened to the endless apron at such distances apart as the length of the pans require. For instance, if the pan is three feet long, the bars should be about three feet and two or three inches, or more, apart, and should be arranged at right angles to the length of the belt, so that the pans can be conveniently fed in between them. The endless apron receives its movements from a small pulley, *d*, on the driving-shaft E, and a large pulley, *d'*, on the shaft *a*<sup>2</sup>, (see Figs. 1 and 2,) and a belt, *d*<sup>2</sup>; but chain-gearing may be used, if desired.

F represents the first cleaning-roller. The brush *f* thereon should be made of fine wire or other stiff material; but for some purposes good bristles will answer. The second roller, G, (when a second roller is required for cleaning,) should have the brush *f'* of softer or finer material.

H represents the greasing-roller, for greasing the pans after they have been cleaned. In some cases the machine is provided with a grease or oil fountain, *f*<sup>2</sup>, made similar to an

ordinary printing-press fountain, (see Fig. 1,) for supplying grease or oil to the brush *g*, which is made of bristles, sponge, or other similar material; but the fountain *f*<sup>2</sup> may in some cases be dispensed with. The brush-rollers are connected together by belts, as follows, (see Fig. 3:) The greasing-roller H is on the driving-shaft E, *i i'* being the driving-pulleys. On the driving-shaft is a pulley, J, having a belt, *J'*, running on a smaller pulley, *e*. Inside of the pulley *e* is a larger pulley, *e'*, having a belt, *r*, running to a small pulley, *e*<sup>2</sup>. By this arrangement it will be seen that the driving-shaft turns the greasing-roller H, and a belt, *J'*, drives the roller G, which in turn, by its pulley and belt, drives the cleaning-roller F; and it will be further seen that the speed of the roller G is faster than the roller H, and the speed of the roller F is faster than the roller G. The pans R are fed under the rollers in the direction of the arrow L, while the rollers turn in the direction of the arrow *m*. (See Fig. 1.)

If desired, chain-gearing may be used for operating the brushes and other parts of the machine, instead of the belts shown, or they may be geared together with the ordinary gear-wheels.

The operation of the machine will be readily understood from the following description and accompanying drawings: The pans R, being fed into the machine as above mentioned, are delivered cleaned and greased from the opposite side of the machine ready for use.

The relative speed of the rollers or brushes may be varied without changing the nature of my invention, and in some cases the pushing-bars D may be left off from the endless apron, in which case the pans would have to be pushed through the machine one after the other.

I claim as my invention—

In a machine for cleaning pans, the combination of a cleaning roller brush, F *f*, with a greasing roller brush, H *g*, an oil-reservoir, and an endless apron, B, and their operating-gearing, substantially as described.

WALTER S. OVENS.

Witnesses:

JAMES SANGSTER,

CHARLES E. BENEDICT.