

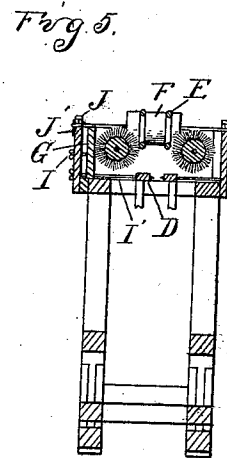
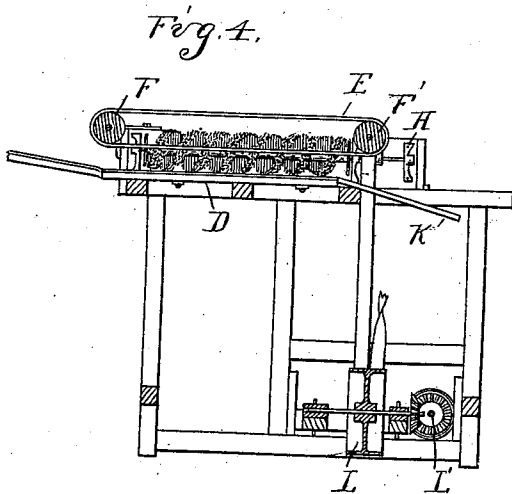
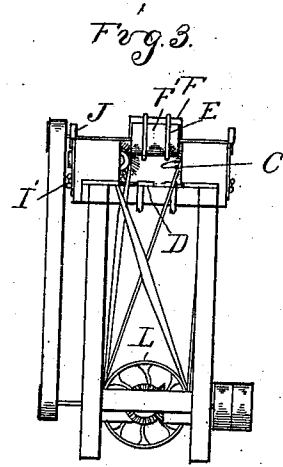
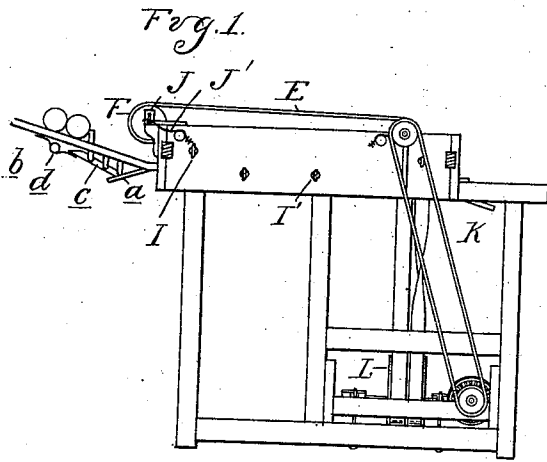
(No Model.)

2 Sheets—Sheet 1.

G. A. FARINI & F. X. GAUDRIE.
BURNISHING MACHINE.

No. 574,722.

Patented Jan. 5, 1897.



Witnesses

Otto H. Pautsch
Wm. McPherson

Inventors

Guillermo A. Farini
Francois X. Gaudrie
By *Wm. McPherson* Attys.

(No Model.)

2 Sheets—Sheet 2.

G. A. FARINI & F. X. GAUDRIE.
BURNISHING MACHINE.

No. 574,722.

Patented Jan. 5, 1897.

Fig. 2.

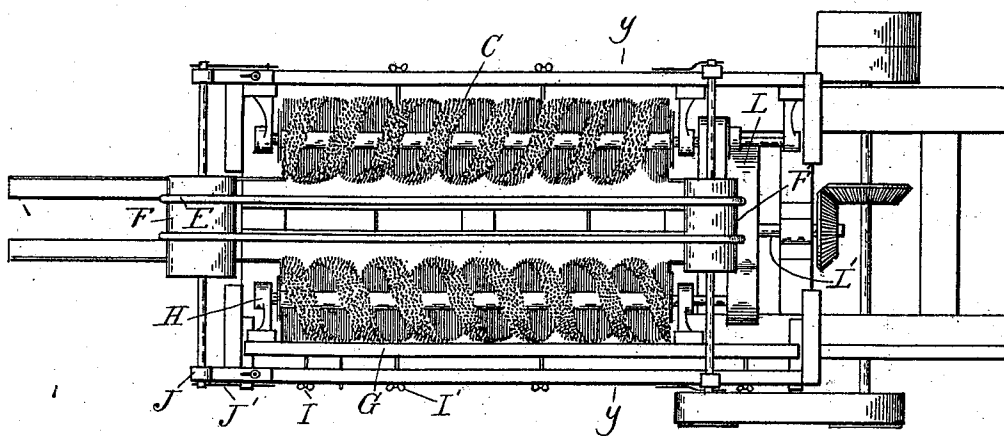
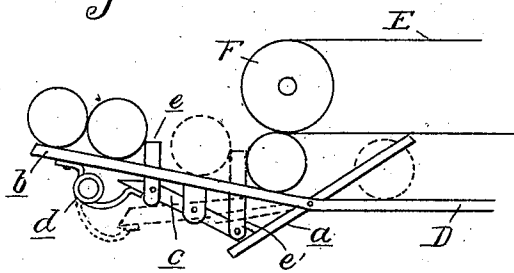


Fig. 6.



Witnesses
Otto F. Brandel
Wm. D. O'Keefe

Inventors
Guillermo A. Farini
Francois X. Gaudrie
By *Wm. Sprague* Attys.

UNITED STATES PATENT OFFICE.

GUILLERMO A. FARINI, OF LONDON, ENGLAND, AND FRANCIS X. GAUDRIE,
OF PORT HOPE, CANADA.

BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 574,722, dated January 5, 1897.

Application filed April 13, 1896. Serial No. 587,334. (No model.)

To all whom it may concern:

Be it known that we, GUILLERMO A. FARINI, residing at London, England, and FRANCIS X. GAUDRIE, residing at Port Hope, Durham county, Province of Ontario, Canada, subjects of the Queen of Great Britain, have invented certain new and useful Improvements in Burnishing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a burnishing-machine designed to burnish two ends or sides of an object or article at the same time, and it is particularly designed for burnishing the ends of sheet-metal cans, which at the present time it is found desirable to burnish to prevent the too-rapid rusting of the same.

The invention consists in detail in two adjacent separated burnishing devices with a feed, and, further, in the construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of our improved machine. Fig. 2 is a top plan. Fig. 3 is an end elevation looking from the right of Fig. 1. Fig. 4 is a vertical central longitudinal section. Fig. 5 is a cross-section on line *yy*, Fig. 2; and Fig. 6 is a diagram elevation illustrating the construction of a cut-off designed for feeding a single can at a time.

We have shown on this frame two horizontal parallel burnishing-brushes *C*, driven by suitable power connections, with guide-rails or a table *D* between and a feed mechanism for feeding the cans over that guideway, comprising the endless belt *E*, traveling over rollers *F F'*, arranged above the guideway or table, these parts being constructed so that the rotation of the brush will burnish the ends of the can as the can is fed along by the roller over the interposed guideways or table, the can being rolled by the movement of the belt, so that all portions of its ends will be presented to the brushes during its movement.

While we deem this the preferable form and arrangement of parts, we do not desire to be limited to the same, as we believe the spirit of our invention includes any machine having burnishing mechanism in juxtaposi-

tion with an interposed feed, so that opposite points on the articles fed therethrough are simultaneously burnished. In this preferred construction one or both of the brushes are preferably made adjustable in relation to the other, so as to provide for articles of different size or wear in the burnishing-brushes. The means we have shown for accomplishing this comprise the head board or block *G*, carrying at each end the brackets *H*, into which the brush-shaft is journaled, and this is adjusted by means of the adjusting-bolts *I*, passing through the side of the frame, as plainly shown in Figs. 2 and 5.

The guide-rails *D* we likewise preferably adjust by means of similar adjusting-bolts *I'*. In order to provide for cans of different size we preferably journal the shaft of the roller *F* in a vertically-slotted standard *J*, as shown in Fig. 1, holding it in the lower position of said slot by the tension of springs *J'*. Near the opposite end of the device we arrange the inclined discharge chute or runway *K*, by means of which the cans are delivered from the machine. Both of the brushes are driven in any suitable manner. We have shown them belted from a pulley *L* in the lower part of the frame, which is driven from the drive-shaft *L'*. The two brushes are shown as revolving toward each other, which with this form of brush we deem the most desirable arrangement. The teeth or bristles of the brush we have shown as spirally arranged, and this is preferable, as it assists somewhat in reducing the power required to feed the can through the machine.

Any suitable feed device may be employed for feeding the cans the desired interval apart into the machine. We have shown the construction illustrated fully in Fig. 6. This embodies a lever *a*, projecting with its upper end into the path of the supply-runway *b* below the initial portion of the belt. This lever bears against a second lever *c*, pivoted below the runway and held normally in the position shown in full lines in Fig. 6 by the tension of the spring *d*. This lever *c* at each end has the pins *e e'*, which are adapted to be alternately projected into the path of the cans through the runway, the operation of the device being as follows: The cans being

piled up on the runway behind the pins *e*, the operator places a can in position to be fed by the feed-belt, which can, as it is fed forward, impinges against the lever *a* and rocks it upon its pivot, which in turn rocks the lever *c*, depresses the pin *e*, and raises the pin *e'*, the cans on the runway rolling down until the forward one strikes the pin *e'*. As soon as the can which has been fed into the machine passes the lever *a* the spring *d* quickly rocks the lever *c* into the position shown in full lines in Fig. 6 and withdraws the pin *e'*, which releases the last can of the series and holds back all the remaining cans during the interval that the can is being drawn under the belt and passing onto the lever *a* in the manner described.

Any other suitable mechanism may be employed without departing from the spirit of our invention.

We have shown the feed-belt driven by belting from the drive-shaft *L'* by suitable gearing connections which we do not think it necessary to describe.

What we claim as our invention is—

1. In a burnishing-machine, adjacent, separated burnishing devices, and an interposed feed, arranged to rotate the article while being fed.
2. In a can-burnishing machine, adjacent, separated burnishing devices, an interposed table, a guide on which the can is fed, and a

feed-belt traveling over the guideway and acting as a feed for the cans.

3. In a can-burnishing machine, the combination of horizontally, parallel separated, rotating burnishing-brushes, and an interposed feed device.

4. In a can-burnishing machine, the combination of two horizontal, parallel, separated, rotating, burnishing-brushes, having the teeth or bristles spirally arranged, means for rotating the brushes toward each other, and a feed for the cans between the brushes.

5. In a can-burnishing machine, the combination of adjacent separated burnishing devices, means for adjusting them in relation to each other and the interposed feed comprising a feed-belt, pulleys upon which the belt runs and a spring-backed support for the initial or entering pulley, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

GUILLERMO A. FARINI.
FRANCIS X. GAUDRIE.

Witnesses to signature of Guillermo A. Farini:

M. B. O'DOHERTY,
JAMES WHITTEMORE.

Witnesses to signature of Francis X. Gaudrie:

SETH S. SMITH,
HELEN E. DUNN.