H. E. SMITH.

Ironing-Apparatus.

No. 167,580. Patented Sept. 7, 1875.

Fig: 1.

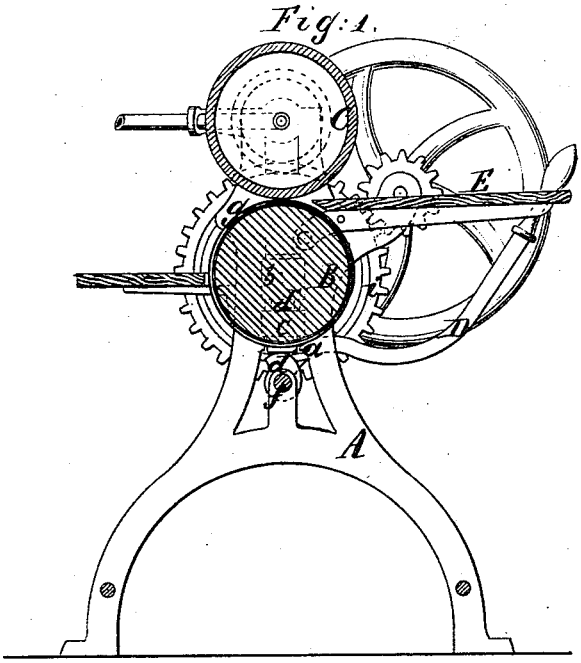


Fig: 2.

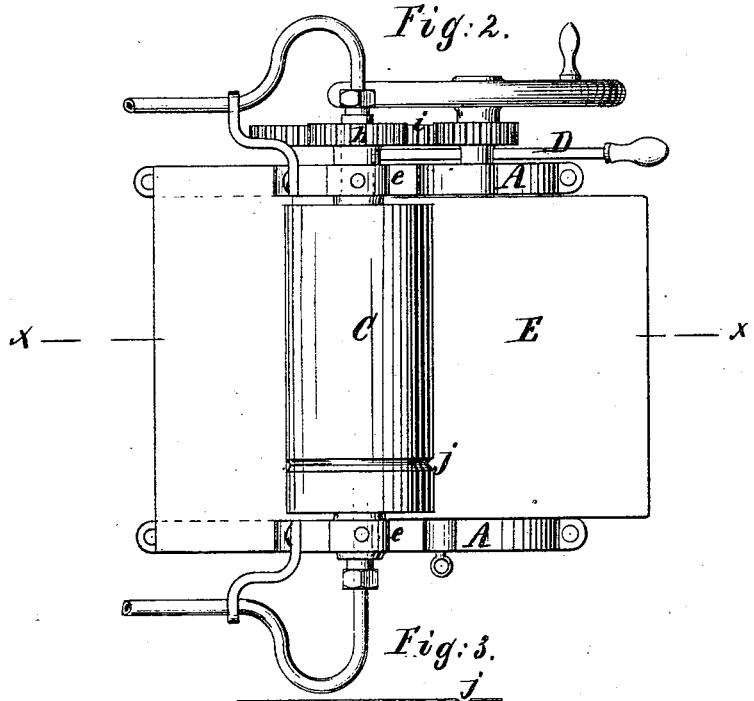
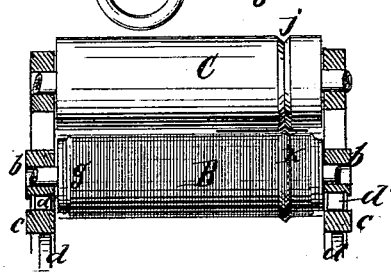


Fig: 3.



Witnesses:

Ernst Bilhuber.

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UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF NEW YORK, N. Y.

IMPROVEMENT IN IRONING APPARATUS.

Specification forming part of Letters Patent No. **167,580**, dated September 7, 1875; application filed August 6, 1875.

To all whom it may concern:

Be it known that I, HAMILTON E. SMITH, of the city, county, and State of New York, have invented a certain new and Improved Machine for Ironing Clothes and other articles, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a transverse vertical section in the plane *x x*, Fig. 2. Fig. 2 is a plan or top view. Fig. 3 is a front view of the calendering-roller and the supporting-roller detached.

Similar letters indicate corresponding parts.

This invention consists in the combination of a heated calendering-roller with a cloth-covered supporting-roller, said rollers being geared together so that the calendering-roller moves with a superficial velocity different from that of the supporting-roller. The calendering-roller is provided with a groove, and the supporting-roller with a corresponding projection, to take up the gore of shirt-collars or other articles to be exposed to the action of the two rollers.

In the drawing, the letter A designates the frame of my machine, said frame being provided with two guide-slots, *a*, for the reception of the journal-boxes *b* of the supporting-roller B, and for blocks *c*, which are supported by cams *d*, and which are separated from the boxes *b* by pads *d'* of india-rubber or other elastic material. In the upper part of the frame A are secured boxes *e*, which form the bearings for the calendering-roller C. The cams *d* are mounted on a shaft, *f*, which has its bearings in the frame A, and on one end of this shaft is mounted a hand-lever, D, so that by depressing this hand-lever the boxes *b* of the supporting-roller B are raised, and the pressure to be exerted on the articles passing through between the two rollers B and C can be controlled by the workman attending to the machine. At the same time the elastic pads *d'* render the supporting-roller yielding to a certain degree, so that injury to the clothes or articles passing through between the rollers is avoided.

The supporting-roller is made of wood or other suitable material, and it is covered with a layer of felt, and on this layer is secured the ironing-cloth *g*, in such a manner that said ironing-cloth can be readily removed when it becomes dirty or torn, and that a fresh ironing-cloth can be applied with little trouble or loss of time. The calendering-roller C is heated with steam or in any other desirable manner, and it is geared together with the supporting-roller by means of cog-wheels *h i*, which are so proportioned that the superficial velocity of said calendering-roller is different from that of the supporting-roller, the velocity of the calendering-roller being, by preference, about twice as great as that of the supporting-roller, so that the clothes, in passing through between the two rollers, will be polished. The clothes or articles to ironed are fed to the rollers B C over a table, E, which is secured to the frame A, and as the same are prevented from slipping on the ironing-cloth which surrounds the supporting-roller, their upper or outer surfaces are polished by the action of the calendering-roller. Said calendering-roller is provided with a groove, *j*, and the supporting-roller is furnished with a corresponding projection, *k*, so that the gores of certain classes of shirt-collars or other articles will be taken up by said projection and groove, and that portion of said articles which is to be polished will lie flat on the supporting-roller. The depth and form of the groove and projection will have to be adapted to the articles to be ironed, but if my machine is to be used principally for shirts and shirt-collars, the groove and projection will be adapted to these articles.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in an ironing-machine, provided with a calendering-roller adapted to be heated, of a supporting-roller having a removable covering of fabric, and the two rollers being geared together to have a differential rotary movement for polishing the clothes as they are ironed, substantially as and for the purpose described.

2. The combination, with the smooth calendering-roller, of an ironing-machine adapted

to be heated, and constructed with the circumferential groove *j*, at or near one end of the supporting-roller B, having a corresponding projection, *k*, and a covering of fabric, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 13th day of January, 1875.

HAMILTON E. SMITH. [L. S.]

Witnesses:
W. HAUF,
E. F. KASTENHUBER.