# G. W. H. CALVER.

## Improvement in Ironing-Machines.

No. 131,052. Patented Sep. 3, 1872.

Fig. 1.

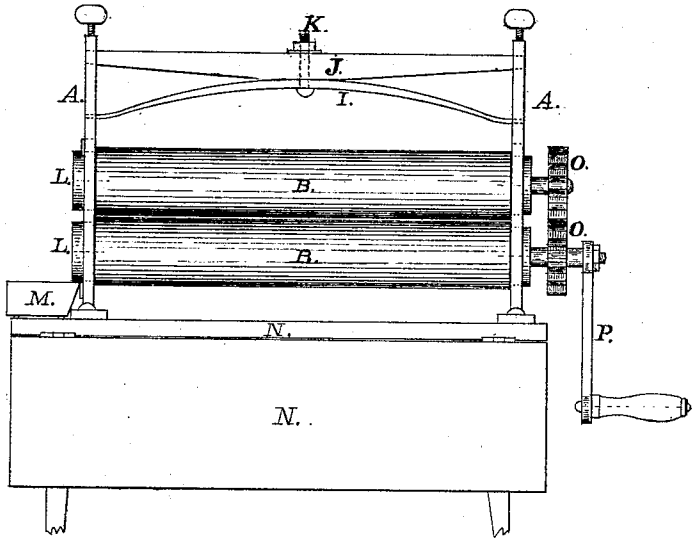



Fig. 2.

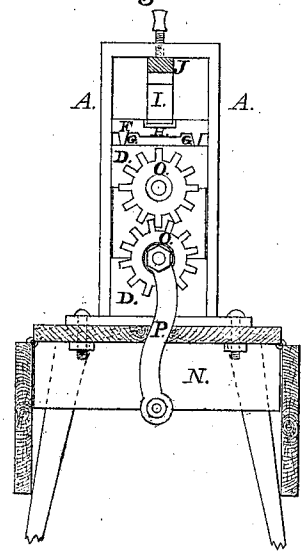



Fig. 3.

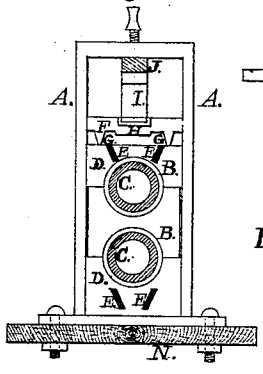



Fig. 4.

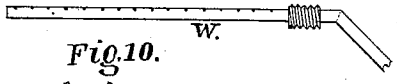



Fig. 5.


Fig. 8.

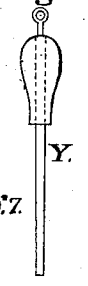



Fig. 10.


Fig. 11.


Fig. 9.

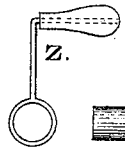
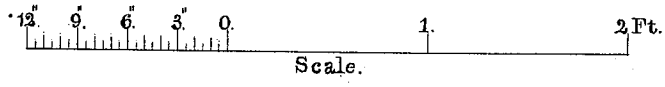



Fig. 6.


Fig. 7.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# UNITED STATES PATENT OFFICE.

GEORGE W. H. CALVER, OF BURLINGTON, NEW JERSEY.

## IMPROVEMENT IN IRONING-MACHINES.

Specification forming part of Letters Patent No. **131,052**, dated September 3, 1872.

Specification describing a new and Improved Clothes-Ironing Machine, invented by GEORGE W. H. CALVER, of Burlington, in the county of Burlington and State of New Jersey.

This invention has for its object to improve that class of clothes-ironing machines in which tubular revolving rollers are employed to effect the ironing operation. The principal feature of my invention consists in the employment of a pair of tubular ironing-rollers, which are provided with an attachment for the reception of gas-heating devices, thus avoiding the disadvantages and expense arising from the use of steam or hot air, as generally used. The second part of my invention relates to a method of insulating the ends of a spring employed for exerting pressure upon the ironing-rollers by means of plates or blocks interposed between the spring and rollers, thus preventing the injurious action of the heat upon the temper of the former. The third feature of my invention consists in the application, to the inner surface of the ironing-cylinders, of annular flanges for preventing the escape of the scales, dust, &c., collecting within the same. The fourth part of my invention has for its object to furnish means for admitting the air necessary for the proper combustion of the gas at both ends of the cylinders; and consists in the employment of detachable perforated plugs, provided with journals for the application of the operative gearing.

In the drawing, Figure 1 is a side elevation of the machine. Figs. 2 and 3 are end views of the same. Fig. 4 is a detail view of the gas-jet heating-tube. Fig. 5 represents a detachable plug for the rollers. Figs. 6 and 7 are detail views of the metallic heating-bolt. Figs. 8 and 9 represent devices for manipulating said bolt. Figs. 10 and 11 represent detachable frames for applying the gas-heating apparatus to the rollers.

A A represent the frame of the machine, in which are located the revolving ironing-rollers B B, situated one above the other. C C are annular flanges or ridges formed on the inner surface of the rollers, near their ends, for preventing dust, scales, and other foreign substances collecting within the rollers from dropping on the ironing-table or clothes. Said flanges are raised a suitable distance to accomplish the result above mentioned, but are not sufficiently large to prevent the free insertion of the heating devices. D D represent sectional boxes adapted to receive the ends of the ironing-rollers and movable in a vertical direction within the frame of the machine. The sides of the boxes are grooved to receive a corresponding tongue on the frame, and their inner faces are lined with a suitable anti-friction metal. E E are inwardly-beveled cleats attached to the journal-boxes for the purpose of receiving the detachable frames R S represented in Figs. 10 and 11, the same being provided with appropriate tongues interlocking with the cleats. W, in Fig. 10, represents the gas-tube, which is minutely perforated, and adapted to be inserted into the rollers through the openings T T formed in the attaching-frames R S. The central position within the rollers of said gas-heating tube is always maintained, notwithstanding the various positions they may be in as the frames carrying the heating-tubes are movable with the journal-boxes of the rollers. F represents the device for insulating the pressure-spring, consisting of a horizontal plate with projecting tapering lugs G formed on its lower side, which rest upon the top of the journal-boxes, and thus form passages for air. I is a bent metallic spring, the ends of which rest in depressions H formed in the upper surface of the insulating-plate F, and the central portion of which is, by means of a bolt, K, secured to a transverse bar, J. Said bar J, in connection with the thumb-screws *a a*, serves as a medium for regulating the tension or pressure of the spring upon the journal-boxes. N is the table supporting the frame of the machine, at one end of which is situated a pan, M, for receiving any substances dropping from the projecting ends L L of the ironing-rollers. The rollers are connected by gearing O O, and receive a simultaneous rotation by means of the handle or crank P. Q, in Fig. 5, represents a perforated plug longitudinally grooved, and adapted for insertion into the ends of the ironing-rollers. Said plug is further provided with a journal for the attachment of the cog-wheels and operating-crank, so that when gas is employed to heat the rollers the necessary air for securing a perfect combustion is admitted at both ends of the rollers. When solid metallic bolts represented at *x x*, Figs.

6 and 7, are used for heating purposes a plug without perforations should be used. Said bolt *x* is provided with a hole in one end for the insertion of the handled rod *y*, and also with a depression in its face, which is crossed by a wire, forming an eye, for the purpose of removing it from the fire. Z, Fig. 9, represents a second device for manipulating the heating-bolt, consisting of a vertical rod provided with an eye or ring at its lower end and having a horizontal wooden handle at its upper end.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the tubular ironing-rollers B B and sliding journal-boxes D D, when the latter are provided with cleats E E, or equivalent devices for attaching the frames R S, carrying the gas-heating tubes W, as herein shown and described.

2. The insulating device F, provided with lugs G and depression H, for receiving the end of the pressure-spring I, as herein shown and described.

3. The ironing-rollers B B, provided with internal annular flanges C C, as and for the purpose specified.

4. The detachable perforated plug Q adapted for insertion into the end of the ironing-rollers, and provided with a suitable journal for the application of gearing O O and hand-crank P, as set forth.

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