

J. G. CRAWFORD.
Ironing Apparatus.

No. 219,345.

Patented Sept. 9, 1879.

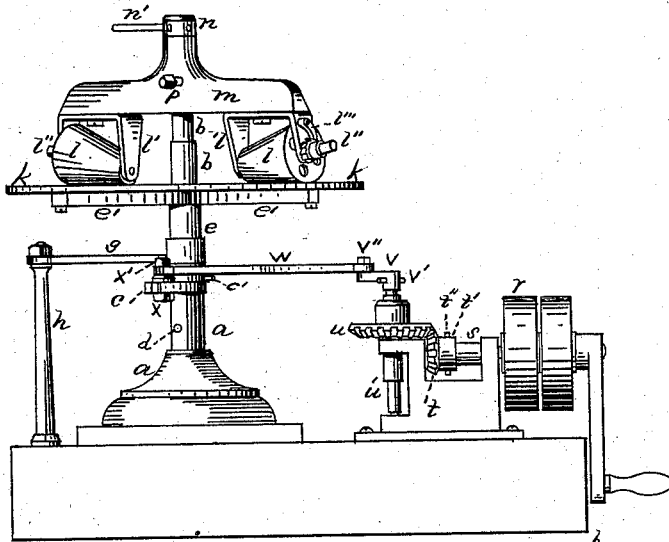


Fig. 1.

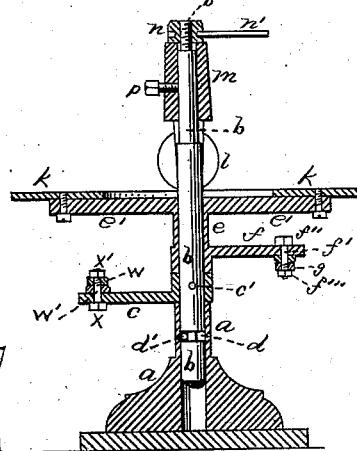


Fig. 3.

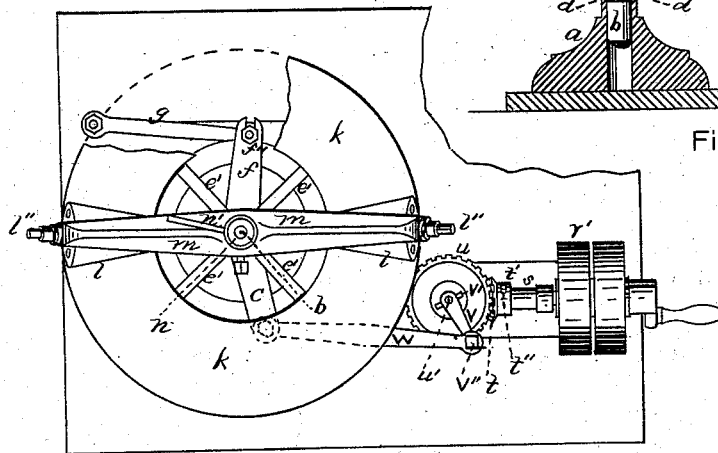


Fig. 2.

WITNESSES.

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FIG. 2.

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By his Atlys.

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UNITED STATES PATENT OFFICE.

JAMES G. CRAWFORD, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN IRONING APPARATUS.

Specification forming part of Letters Patent No. **219,345**, dated September 9, 1879; application filed March 24, 1879.

To all whom it may concern:

Be it known that I, JAMES G. CRAWFORD, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Ironing Apparatus, of which the following is a specification.

This is an ironing-machine adapted more especially to ironing collars, cuffs, and other small articles.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is an elevation of my improved machine. Fig. 2 is a plan, with a small portion broken out of the table in order to disclose some portions beneath it. Fig. 3 is a vertical section of the more important parts of the device.

a is a base or socket, supporting a post or shaft *b*, which is allowed to turn in said socket without danger of coming out, by means of the groove *d* and pin *d'*. Secured to this post *b* by means of the pin *c'*, Fig. 3, is the lever *c*. *e* is a sleeve placed loosely upon the post *b*, and extending into arms *e'*, which radiating arms support the circular ironing-table *k*, secured thereupon. *f* is a lever fixed to the sleeve *e*, and connected, by means of the pin *f'* and nuts *f'' f'''*, with the horizontal rod *g*, which passes to the post *h*. The object of the rod *g* and post *h* is to allow of the sleeve *e* and table *k* being stationary while the post or shaft *b* rotates.

l l are hollow ironing-rollers, made in the shape of the frustum of a cone, so that they can travel on the table *k* and press evenly upon it without any portion of the roller slipping, as would be the case if the rollers were of even diameter throughout. The rollers *l* have their bearings in carriages *l'*, supported by the arms of the frame *m*, and are provided with pipes *l''* for gas or steam, (for heating,) and ratchets *l'''*, for allowing the rollers to turn one way, (to iron,) and slide the opposite way, (to polish,) as is common in some other machines.

By means of the cap *n* and handle *n'*, the former screwing onto the upper end of the post *b*, the pressure of the rollers *l* upon the circular ironing-table *k* is increased or decreased at will, the set-screw *p* holding the

frame *m* at the proper pressure, or releasing it to allow the pressure to be altered.

r is the pulley for transmitting power, fixed to the shaft *s*, to which is also fixed, by means of the pin *t''*, the collar *t'*, holding the bevel-gear *t*, which meshes into the bevel-gear *u*, fixed to the vertical shaft *u'*. The crank *v* is fixed, by means of the pin *v'*, to the upper end of the shaft *u'*, and is connected, by means of the pin *v''*, with the lever or connecting-rod *w*, which, at its opposite end, connects, by means of the pin *w'* and nuts *x x'*, with the lever *c*, above described.

Thus it will be seen that by imparting motion to the pulley *r* the crank *v* is operated, which, by means of the connecting-rod *w*, moves the lever *c* back and forth, which lever *c*, being fixed to the post or shaft *b*, rotates it back and forth, and the frame *m* being fixed by means of the set-screw *p* to the post *b*, reciprocating circular motion is imparted to the rollers *l*, the ironing-board *k* being stationary.

The frame *m* may be held stationary, and the table *k* have reciprocating rotary motion imparted to it by detaching the lever *c* from the connecting-rod *w* and attaching it to the rod *g*, and detaching the lever *f* from the rod *g* and attaching it to the connecting-rod *w*. The connecting-rod *w* will then vibrate the lever *f*, which will rotate the sleeve *e* and table *k*. The practical effect upon the goods ironed is the same in both cases.

The table is admirably adapted, by means of its shape, to iron the class of stand-up collars known as "Piccadilly," and, in fact, all collars and cuffs.

The pressure is the same on both rollers, and the circular table is very convenient for the operators.

As the paths of the ironing-rollers cover only a portion of the circumference of the table, it is evident that two portions of it could be cut out, such portions being on opposite sides, between the parts traveled over by the rollers, without injury, and thus leave extra space for the operators. If this were done, instead of one table there would be two tables, the outer edge of each describing the arc of a circle.

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

1. The combination of the flat circular ironing-table *k*, rollers *l l*, carriages *l' l'*, arms *m*, and cap or collar *n*, provided with the handle *n'*, and screwing upon the post *b*, substantially as and for the purposes specified.

2. The combination of the post *b*, lever *c*, fixed thereto, and arms *m*, carrying rollers *l l*, and provided with the set-screw *p*, with the sleeve *e*, having the lever *f* and radiating arms *e'* extending therefrom, and table *k*, arranged

and combined substantially as and for the purpose set forth.

3. In an ironing apparatus, the combination of the gear *t u*, shaft *u'*, crank *v*, and connecting-rod *w* with the levers *c f*, whereby the said connecting-rod imparts motion either to the rollers or the table, substantially as shown and described.

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Witnesses:

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