No. 665,806. Patented Jan. 8, 1901.

H. E. SMITH.

PRESSURE ROLL FOR IRONING MACHINES.

(Application filed July 24, 1900.)

(No Model.)

Fig. 1.

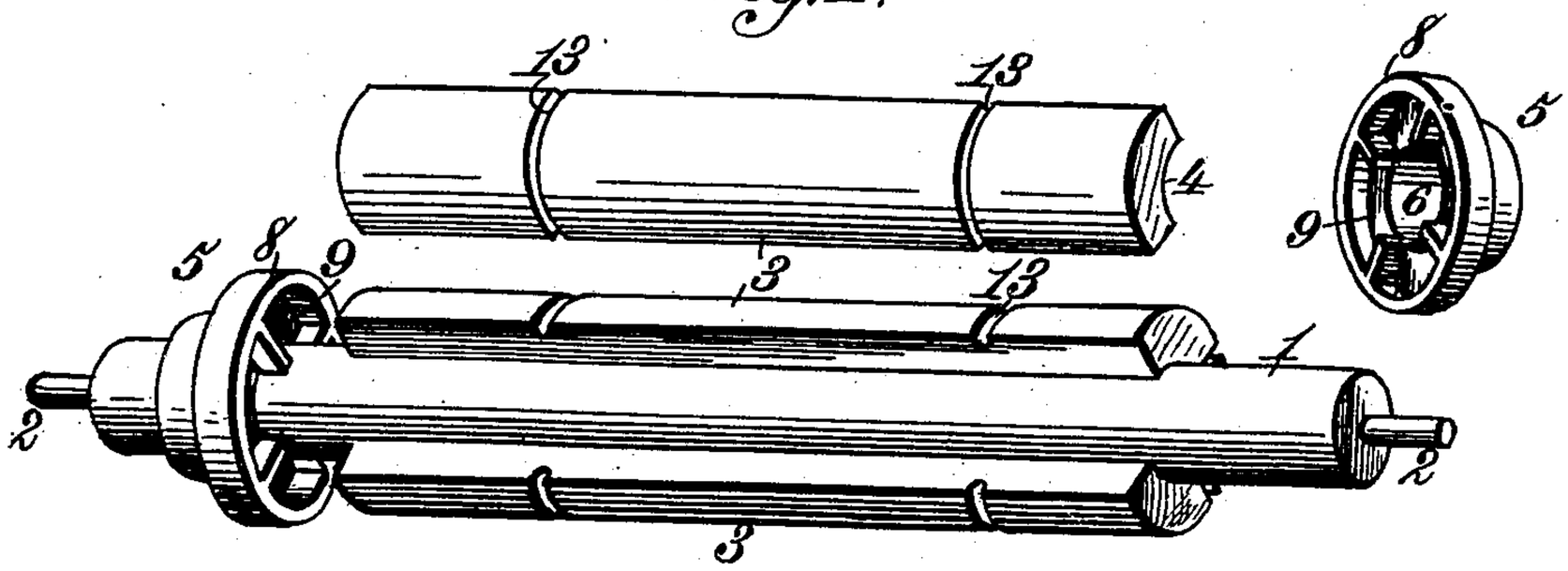


Fig. 2.

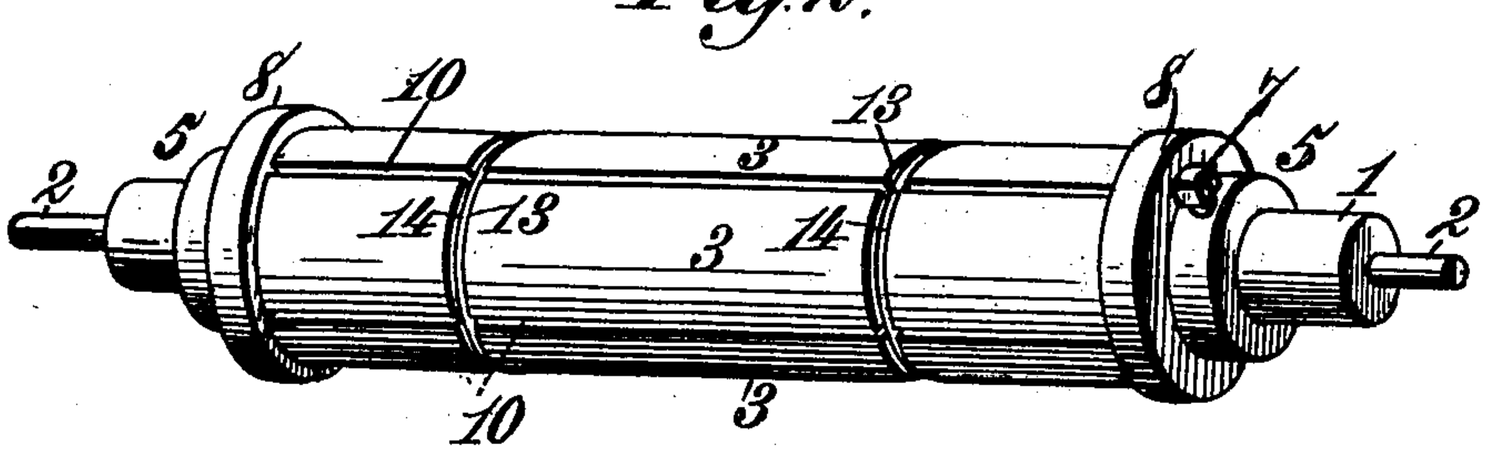
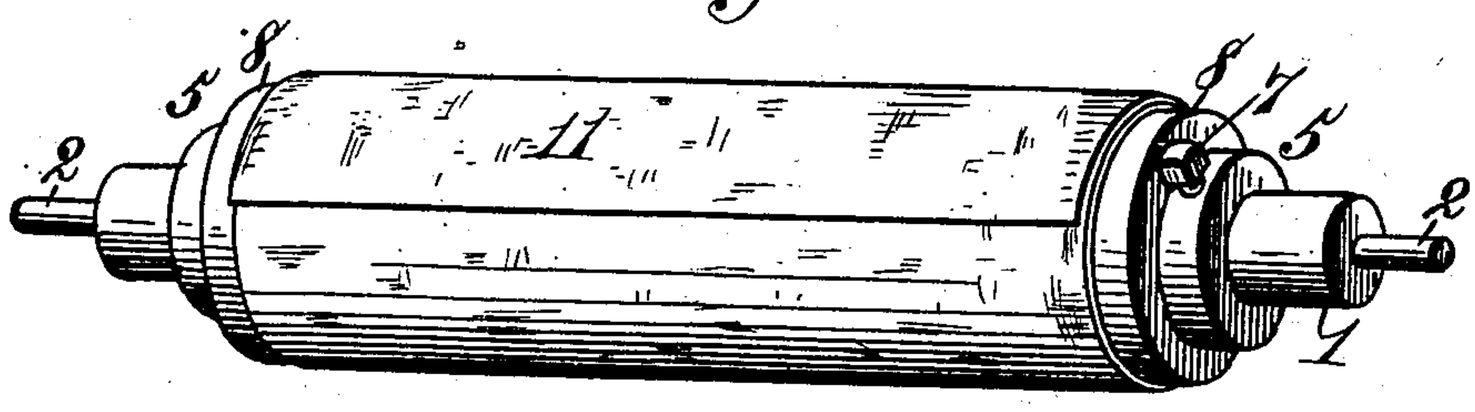


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

PRESSURE-ROLL FOR IRONING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 665,806, dated January 8, 1901.

Application filed July 24, 1900. Serial No. 24,714. (No model.)

To all whom it may concern:

Be it known that I, HAMILTON E. SMITH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Pressure-Rolls for Ironing-Machines, of which the following is a specification.

My invention relates to an improved pressure-roll for ironing-machines, and has for its objects to provide a roll of this character which shall be of comparatively light weight, which shall be securely braced against bending under pressure, and which shall provide for the circulation of air beneath the felt cover of the roll, so that the same may be properly ventilated.

To these ends the invention consists of the details of construction and the combinations of parts hereinafter described, and particularly pointed out in the claims.

In order that my invention may be fully understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a perspective view of the roll with parts detached therefrom. Fig. 2 is a similar view of the roll with the parts assembled, and Fig. 3 is also a perspective view showing the roll provided with an outer covering of felt.

The numeral 1 indicates an iron shaft having at its ends journals 2.

The numerals 3 indicate a series of lags which are designed to be secured about the periphery of the shaft 1. Four of these lags will usually be employed. Each of said lags comprises a strip of wood having its outer side rounded and its inner side concaved, as indicated at 4, to properly fit or conform to the curvature of the shaft 1.

The numerals 5 indicate two cast-iron caps which are centrally bored at 6 to receive and fit snugly the shaft 1, upon which they may be securely clamped by means of the set-screws 7. Each of said caps has an annular enlargement 8, in which are provided four sockets or recesses 9, adapted to receive snugly the ends of the lags 3.

In assembling the parts one of the caps 5 is first secured on the shaft. Then the lags are arranged about the shaft, one end of each being inserted in a recess 9. Then the second cap 5 is placed on the opposite end of the shaft, and the ends of the lags having been inserted in the recesses 9 the cap is clamped in position by turning the set-screw 7. The lags 3 are of such width that when clamped in position, as described, a space 10 will be left between the opposing edges of adjacent lags, as shown in Fig. 2, these spaces permitting the air to circulate beneath the felt covering 11, which is subsequently wrapped about the roll, as shown in Fig. 3.

The purpose of ventilating the roll is to keep the felt 11 as dry as possible, as said felt absorbs more or less moisture from the damp clothes being ironed.

About the lags 3 are provided, toward the centers thereof, two or more circumferential grooves 13, in which are seated binding-wires 14, which are employed to clamp the lags firmly to the shaft. The lags thus secured and braced serve to greatly strengthen the shaft 1 and prevent it from springing under pressure. The thickness of the lags may be increased to increase the diameter of the roll without thereby adding greatly to the weight thereof, while by my improved construction the shaft 1 may have a relatively small diameter, so that the completed roll will be comparatively light in weight.

My improved pressure-roll may be used in connection with ironing-machines such as are in general use, and I have not deemed it necessary to illustrate in the drawings the application thereof to a particular machine.

Having thus fully described my invention, what I claim as new is—

1. A pressure-roll for ironing-machines, comprising a shaft, a series of lags fitted about the periphery thereof, and caps secured on said shaft near opposite ends thereof and having a series of sockets receiving the ends of said lags and holding the latter so that a space is left between the opposing edges of adjacent lags, substantially as described.

2. A pressure-roll for ironing-machines, comprising a shaft, a series of lags fitted about

the periphery thereof and having circumferential grooves, caps secured on said shaft near opposite ends thereof and having recesses or sockets receiving the ends of said lags and binding-wires wrapped around said lags and embedded in said grooves, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HAMILTON E. SMITH.

Witnesses:
WM. T. ELLIOTT,
LEON BOUFÉ.