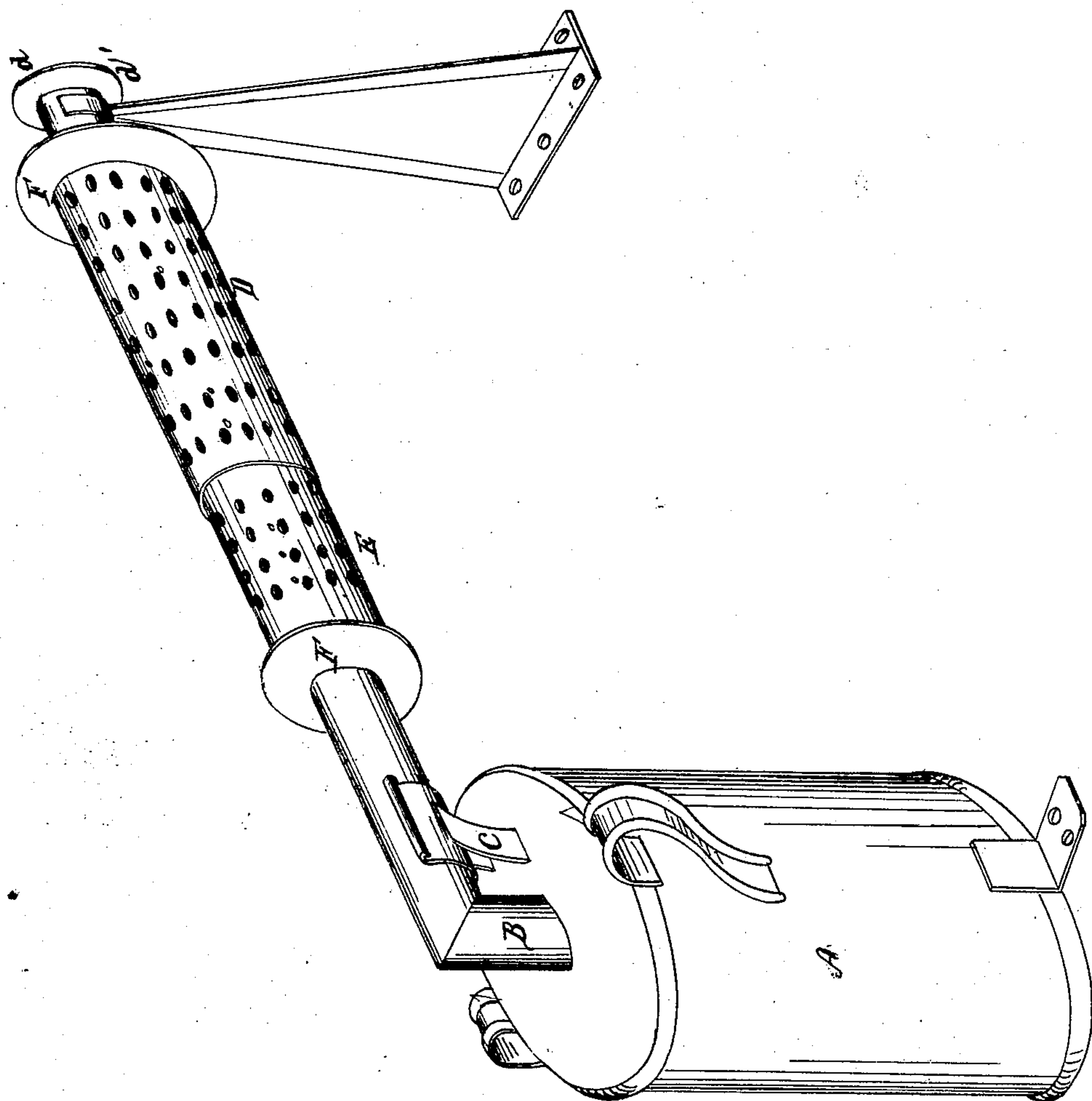


J. R. Paul.
Sponging Cloth.

N^o 71529

Patented Nov. 26, 1867.



Witnesses.

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JOHN R. PAUL, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 71,529, dated November 26, 1867.

IMPROVEMENT IN APPARATUS FOR SPONGING CLOTH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN R. PAUL, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Apparatus for Sponging Cloth; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 represents a perspective view of my invention.

In this invention the cloth is sponged by steam, applied through a perforated adjustable horizontal cylinder, around which the cloth is rolled.

In the drawings, A represents the boiler, having a funnel, B, with an elbow, and a support, C, to receive and hold the end of the cylinder. The latter is composed of two pieces, D and E, each perforated in regular rows, *o o o o*, arranged longitudinally upon the cylinder, between which are spaces, as wide as the diameter of the holes *o o*. One of these pieces slides upon the other, fitting tightly upon it. The pieces D and E are thus capable of both a longitudinal and rotary sliding motion. One extremity, D, of the cylinder, has a cylindrical arm or journal, *d*, resting upon the bearing *d'*; the other extremity is simply a funnel, or prolongation of the cylinder, the end of which fits into the funnel B, and rests upon the support C. F F are flanges, between which the cloth is to be rolled around the cylinder. The holes *o o o o* are arranged at regular distances around the cylinder, and in the direction of its length. The lines of apertures that run around the cylinder are situated at just the distance apart that distinguishes one "width" of cloth from another, so that when the parts D and E are extended to the utmost, the cylinder will permit the widest kinds of cloth to be rolled around it. When slid together far enough to reduce the length of the cylinder by one row of holes, it will be adjusted to receive the cloth next in width to the former, etc. By this means the cylinder can be readily adjusted to cloth of any width whatever.

The operation of this apparatus is exceedingly simple. The boiler, which may be set upon any common stove, generates steam, which, passing through the funnel B into the horizontal cylinder D E, is applied to the cloth wound round the cylinder through the perforations *o o o o*. The cylinder is adjusted to the width of the cloth by the means above described. The amount of steam operating upon the cloth is adjusted by turning the part D upon the part E, so as to open the holes *o o o o* more or less. In addition to this, a damper may be provided in the neck of the cylinder, outside of the flange *e*, or in the funnel B.

The advantages of this apparatus over the old method of sponging cloth are very great. By the old method, the cloth had to be wound or rolled with damp cloth, and left in that situation from ten to twelve hours before it became ready for use. By this method, the same result can be reached in five minutes. The old process was not only slow, but involved greater labor and trouble. This apparatus can be put into operation with no delay, and very little labor. The boiler may be always upon the stove and ready for use, if the work is such as to require it.

I am aware that a cylindrical apparatus for sponging cloth was patented by Louis Rothschild, April 19, 1864. I consider my apparatus vastly superior, as that apparatus cannot be adjusted to the varying width of different kinds of cloth that have to be used in every tailor-shop, nor can the amount of steam fed to the cloth be regulated; but in my invention both of these results are effected with the utmost ease, and without delay.

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

The adjustable perforated horizontal cylinders D E, constructed, arranged, and operating as above described. To the above specification of my improvement, I have signed my hand, this 14th day of May, 1867.

Witnesses:

N. K. ELLSWORTH,
CHAS. A. PETTIT.

JOHN R. PAUL.