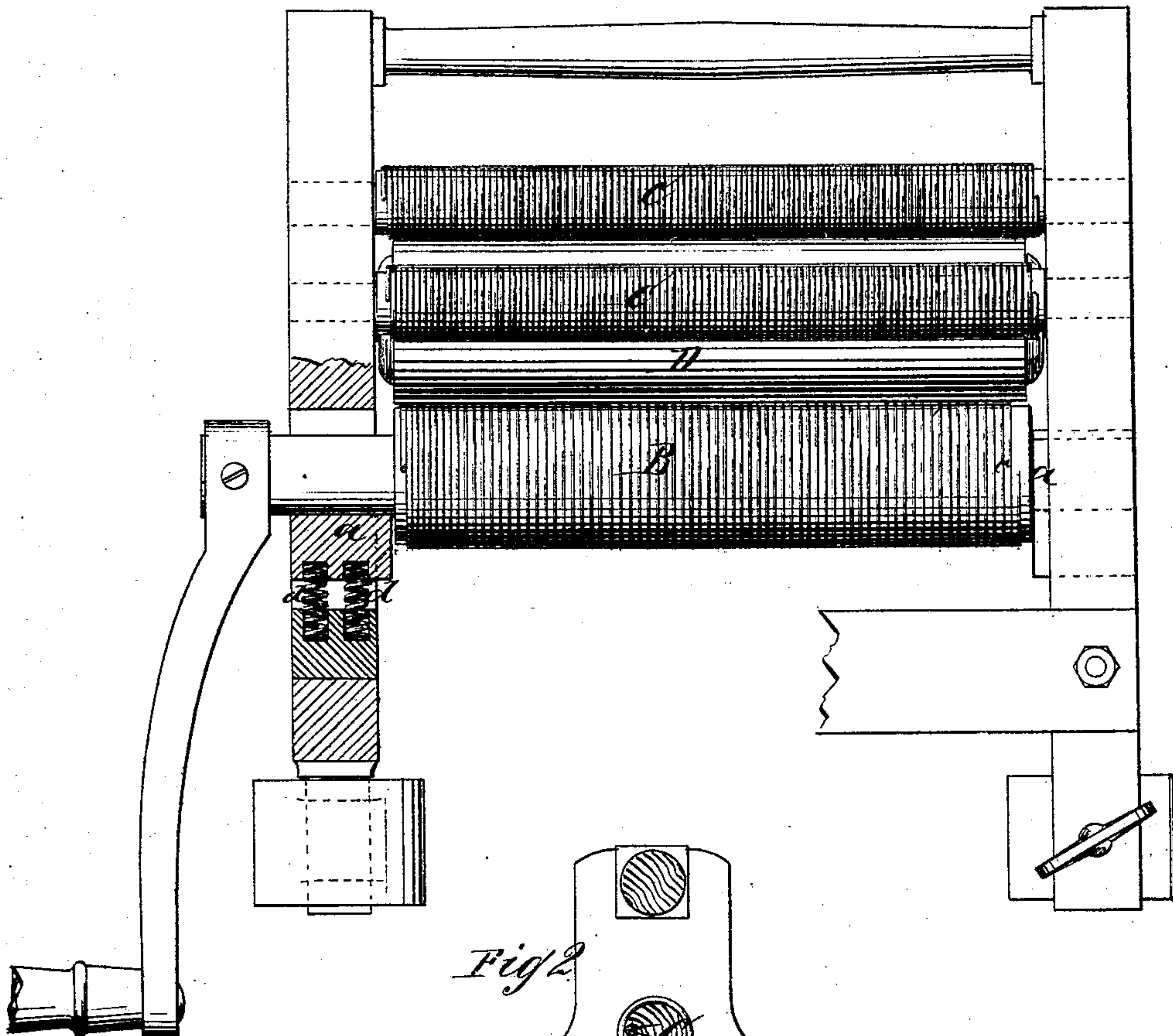


H. E. SMITH.  
Clothes-Wringers.

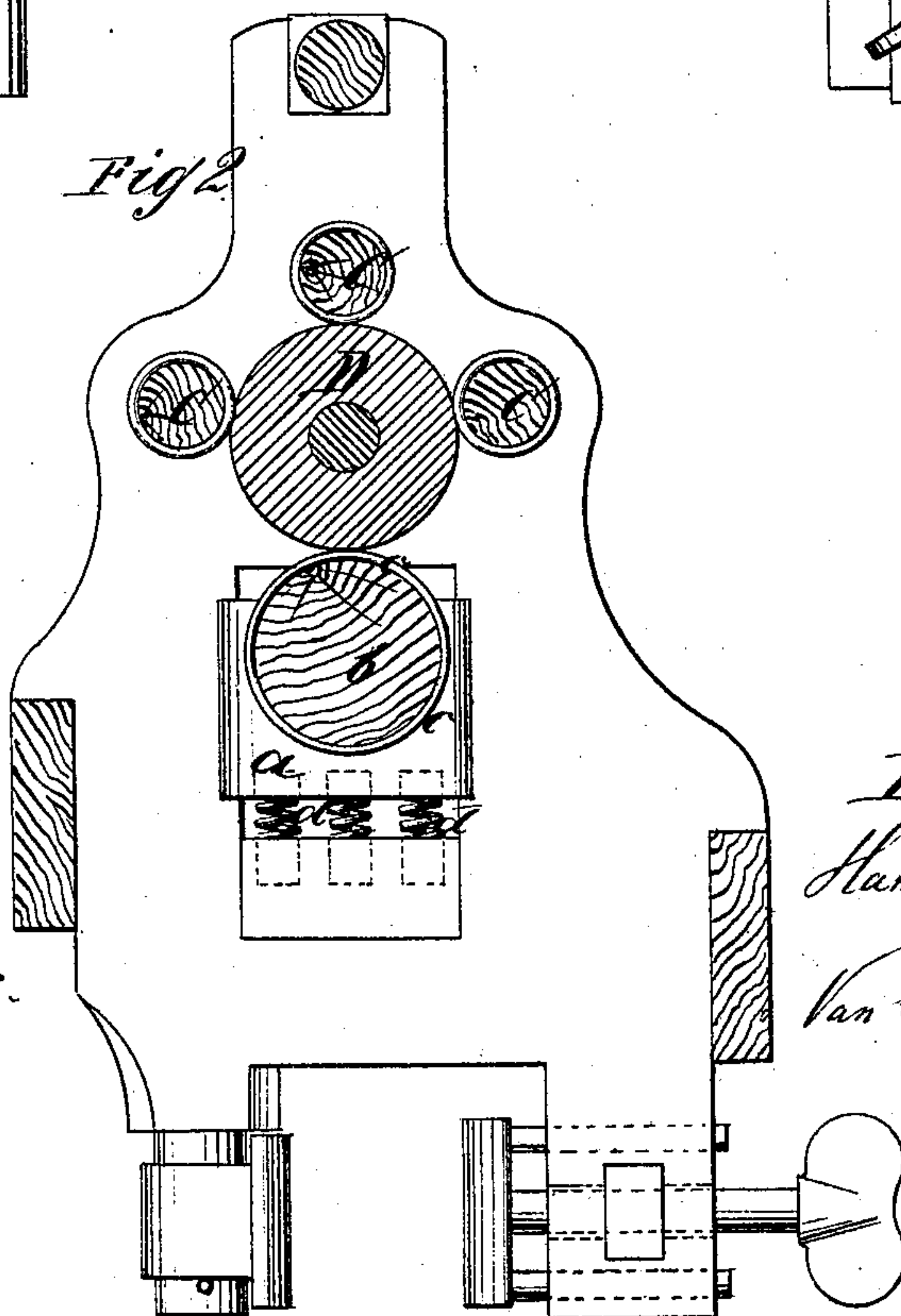
No. 149,258.

Patented March 31, 1874.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
Ernest Bilhuck  
Henry Denton

Inventor:  
Hamilton E. Smith  
per  
Van Santvoord & Haupp  
attys



# UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF WEST FITCHBURG, MASSACHUSETTS.

## IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **149,258**, dated March 31, 1874; application filed February 12, 1874.

*To all whom it may concern:*

Be it known that I, HAMILTON E. SMITH, of West Fitchburg, in the county of Worcester, in the State of Massachusetts, have invented a new and useful Improvement in Clothes-Wringers; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a sectional front view of this invention. Fig. 2 is a transverse section of the same.

Similar letters indicate corresponding parts.

This invention consists in combining with a loose elastic roller two or more guide-rollers covered by helical wires or other friction-coverings, and a pressure-roller, also provided with a friction-covering, in such a manner that by the frictional contact between the rubber roller and the frictional coverings which envelop the guide-rollers and the pressure-roller a uniform motion of all the rollers is insured without gearing the several rollers together; also, in combining with the loose elastic roller, the guide-rollers, and the pressure-roller, two spring-boxes, which form the bearings for the pressure-roller, allowing the same to yield for the passage of the clothes, while the guide-rollers maintain their position, holding the loose elastic roller securely in its place.

The letter A designates the frame of my clothes-wringer, which contains the journal-boxes *a a* for the pressure-roller B, and the sides of which form the bearings for the guide-rollers C. Between the pressure-roller B and the guide-rollers C is placed a loose elastic roller, D. The pressure-roller B consists of a core, *b*, of wood or other suitable material, which is provided with a friction-covering, *c*, composed of a helix of metal wire or other suitable material, the adjoining rings of which lie close together, while its ends are firmly secured in the core *b*. The journal-boxes *a a* are subjected to the action

of springs *d*, which have a tendency to hold the pressure-roller in close contact with the elastic roller. When the pressure-roller is revolved, the rubber of the elastic roller sinks into the grooves between the adjoining strands of the helical wire of the pressure-roller, and the frictional contact between the two rollers is increased to such an extent that the same will revolve together without requiring any gearing. The pressure-roller, provided with a friction-covering, can be used with an elastic roller which runs in bearings, or it can be used with a loose elastic roller which is retained in position by the guide-rollers C, as shown. These guide-rollers are also provided each with a friction-covering, so that when the elastic roller is forced up between them and a revolving motion is imparted to it by the action of the pressure-roller, the frictional contact will compel all the rollers to revolve without fail and without requiring any gearing.

By this arrangement a clothes-wringer is produced which is simple and cheap in its construction, and which acts with superior effect, since the friction-covering of the pressure-roller materially assists in squeezing the moisture out of the clothes which are made to pass through between said pressure-roller and the elastic roller; and at the same time my experience shows that the friction-covering of the pressure-roller does not in the least injure the fabric of the clothes exposed to the action of the rings.

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

The combination of a loose elastic roller, D, with guide-rollers C, provided with a friction-covering, and with a pressure-roller, B, also provided with a friction-covering, and having its bearings in journal-boxes supported by springs *d*, substantially as set forth.

HAMILTON E. SMITH.

Witnesses:

TH. HARRIS HODGES,  
O. GEO. DEEVER.