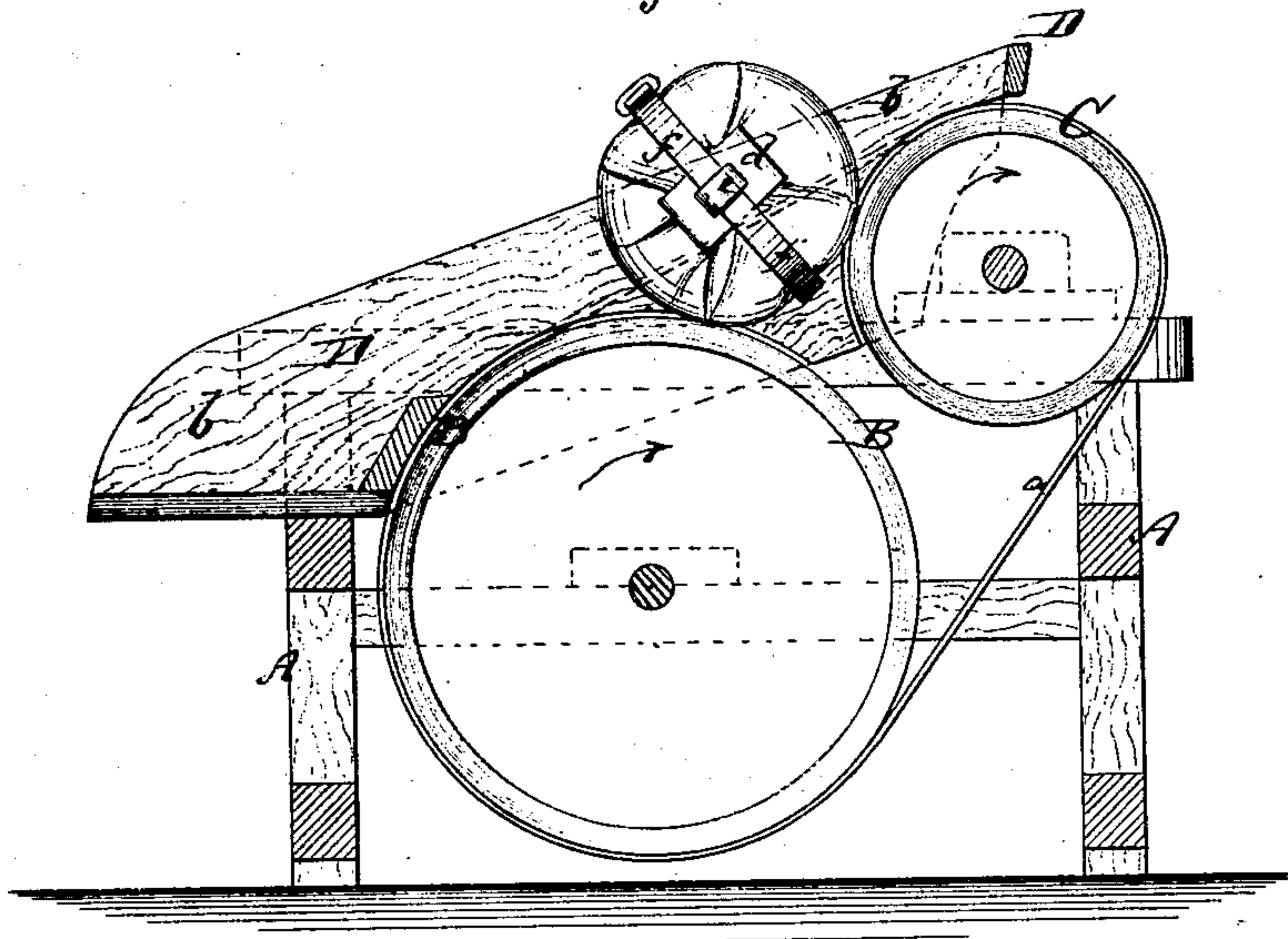


WARREN & BALDY.

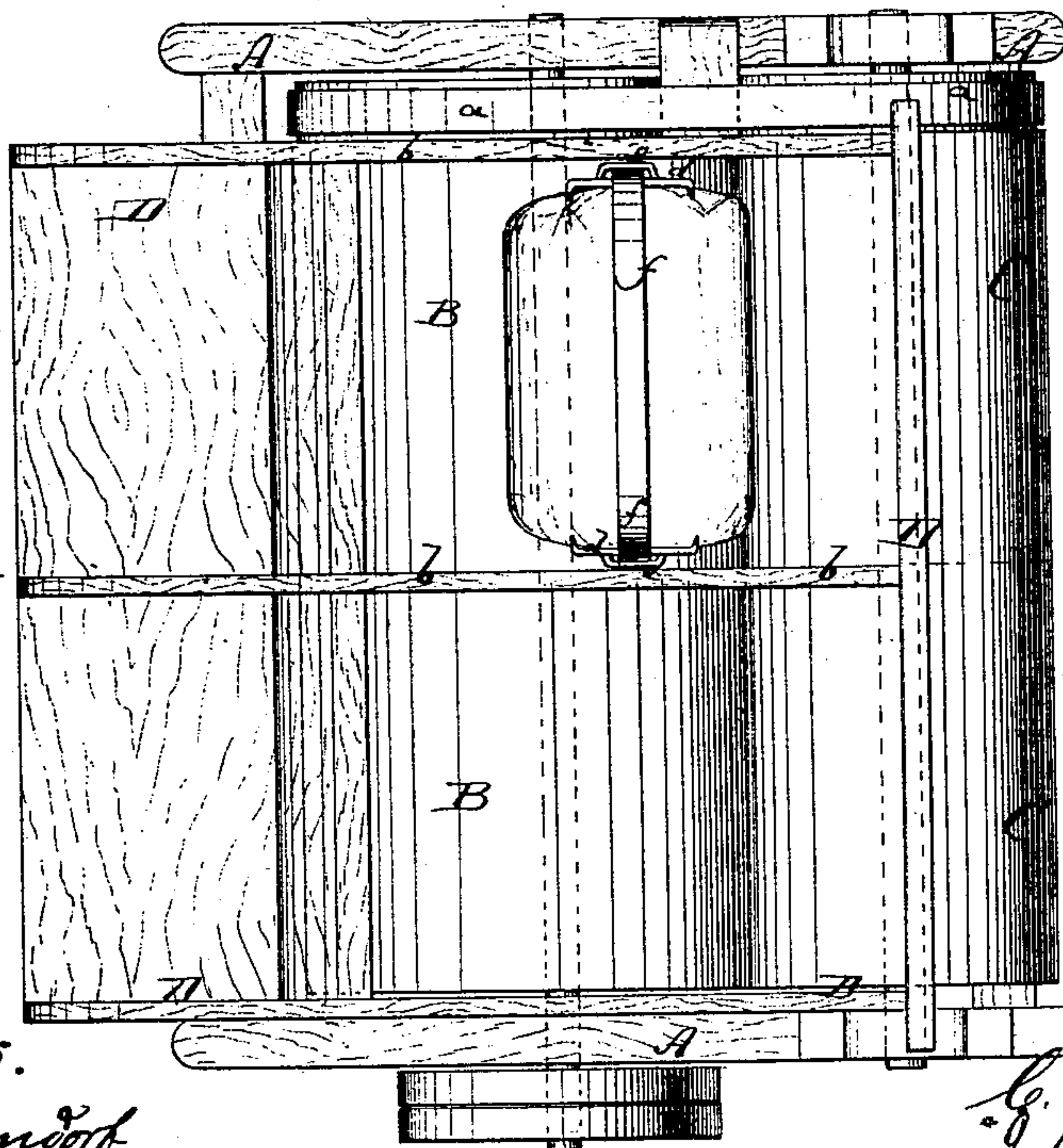
Coffee Polisher.

No. 109,978.

*Fig. 1.* Patented Dec. 6, 1870.



*Fig. 2.*



*Witnesses.*

*A. Benneckenroff*  
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# United States Patent Office.

CHARLES C. WARREN AND JAMES B. BALDY, OF TOLEDO, OHIO.

Letters Patent No. 109,978, dated December 6, 1870.

## IMPROVEMENT IN MACHINES FOR POLISHING COFFEE.

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

### *To all whom it may concern :*

Be it known that we, CHARLES C. WARREN and JAMES B. BALDY, of Toledo, in the county of Lucas and State of Ohio, have invented a new and improved Machine for Polishing Coffee-Beans; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a vertical transverse section of our improved machine for polishing coffee.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to construct a machine whereby coffee can be rapidly cleaned and polished in bags, as described in the Letters Patent of the United States granted to us on the 14th day of June, 1870.

The invention consists chiefly in the employment toward the said purpose of two or more rollers, of which the outer surfaces are employed for revolving the filled bags.

Heretofore the inner sides of hollow cylinders were used for polishing coffee-beans in bags or otherwise. The inner surfaces of these cylinders were not only difficult to shape and smoothen, but also to keep in proper order during use. The application of a series of rollers working with the outer surfaces is, therefore, an advantage economically; also because such rollers will wear evenly under friction, not becoming defective by being reduced in size.

A in the drawing represents the frame of our improved polishing-machine. This frame supports two or more horizontal rollers, B and C, that are united by a belt, *a*, or gearing, in such manner as to be revolved in the same direction when rotary motion is imparted to one of the same. These rollers should be covered with rubber or made elastic.

A frame-work, D, is secured to the frame A and above the rollers B C, to divide, by transverse bars *b*, the length of the rollers into as many spaces as there are bags to be operated upon.

The bags, filled with coffee-beans, are placed upon the machine so as to rest on the rollers B C, and are then revolved, and their contents agitated by the rotation of said rollers. The bars *b* keep the several bags apart.

For closing the bags at the ends, and for giving them the proper lengths and flattening the ends, we prefer to employ flat sheet-metal plates *d d*, which have projecting prongs that enter the bags and loops *e* on the outer sides for receiving the tying-strap *f*.

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

1. The combination of cylinders B C, rotated in the same direction, with coffee-bags placed on and in the interval between the exterior surfaces of said cylinders, as and for the purpose described.

2. The combination, with the surface-working cylinders B C and coffee-bags resting in the intervals between them, of the frame D *b*, to prevent any undue lateral movement of the bags, as described.

3. In combination with the textile cylinder containing the coffee to be cleaned, the plates *d*, constructed as described, and applied as shown, for the purpose specified.

4. The coffee-cleaning and polishing apparatus herein described, consisting of the frames A and D, the textile cylinders, cross-bars *b*, rollers B and C, belt *a*, and pulleys *f g*, constructed and arranged to operate substantially as described.

CHARLES C. WARREN.  
JAMES B. BALDY.

Witnesses:

J. A. CHASE,  
J. E. MOBRIDE.