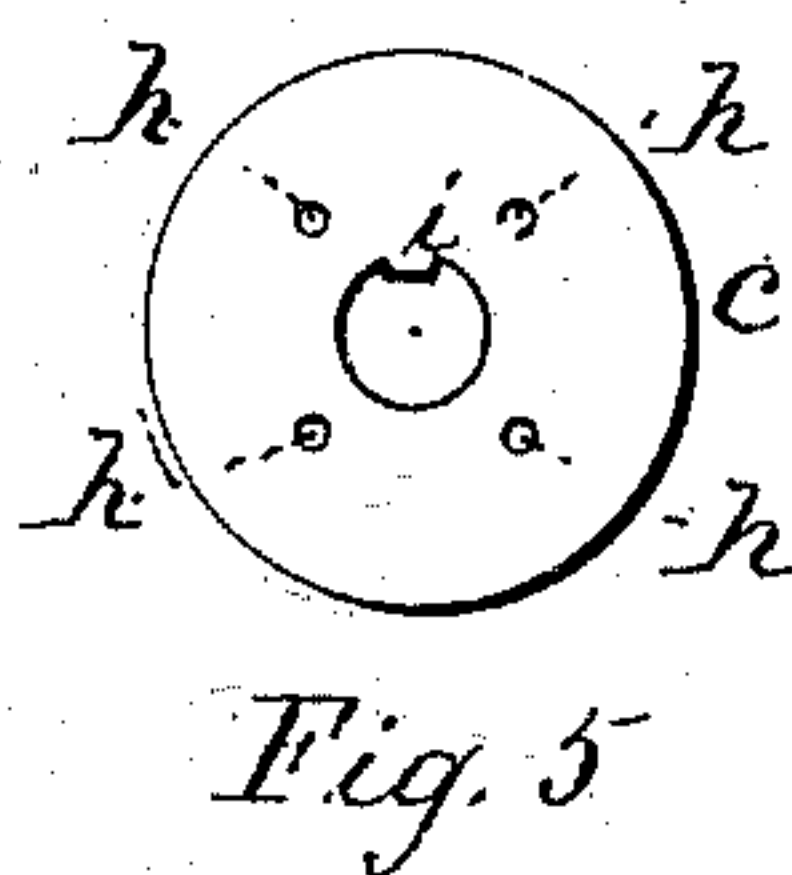
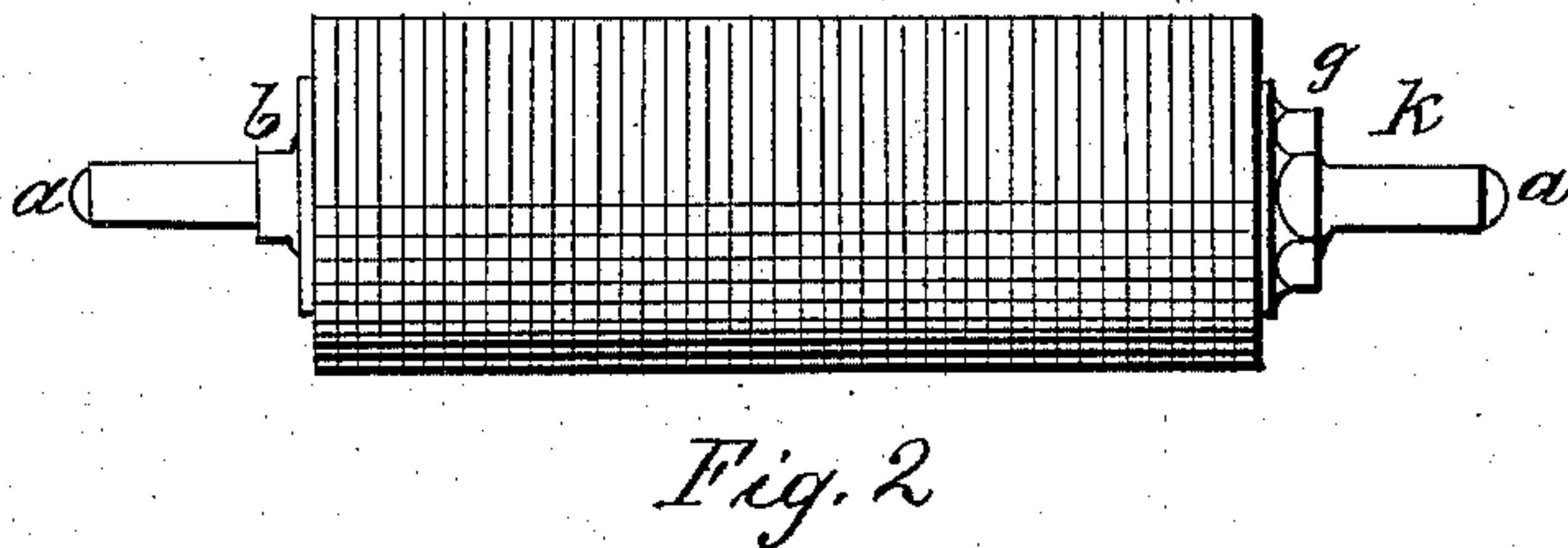
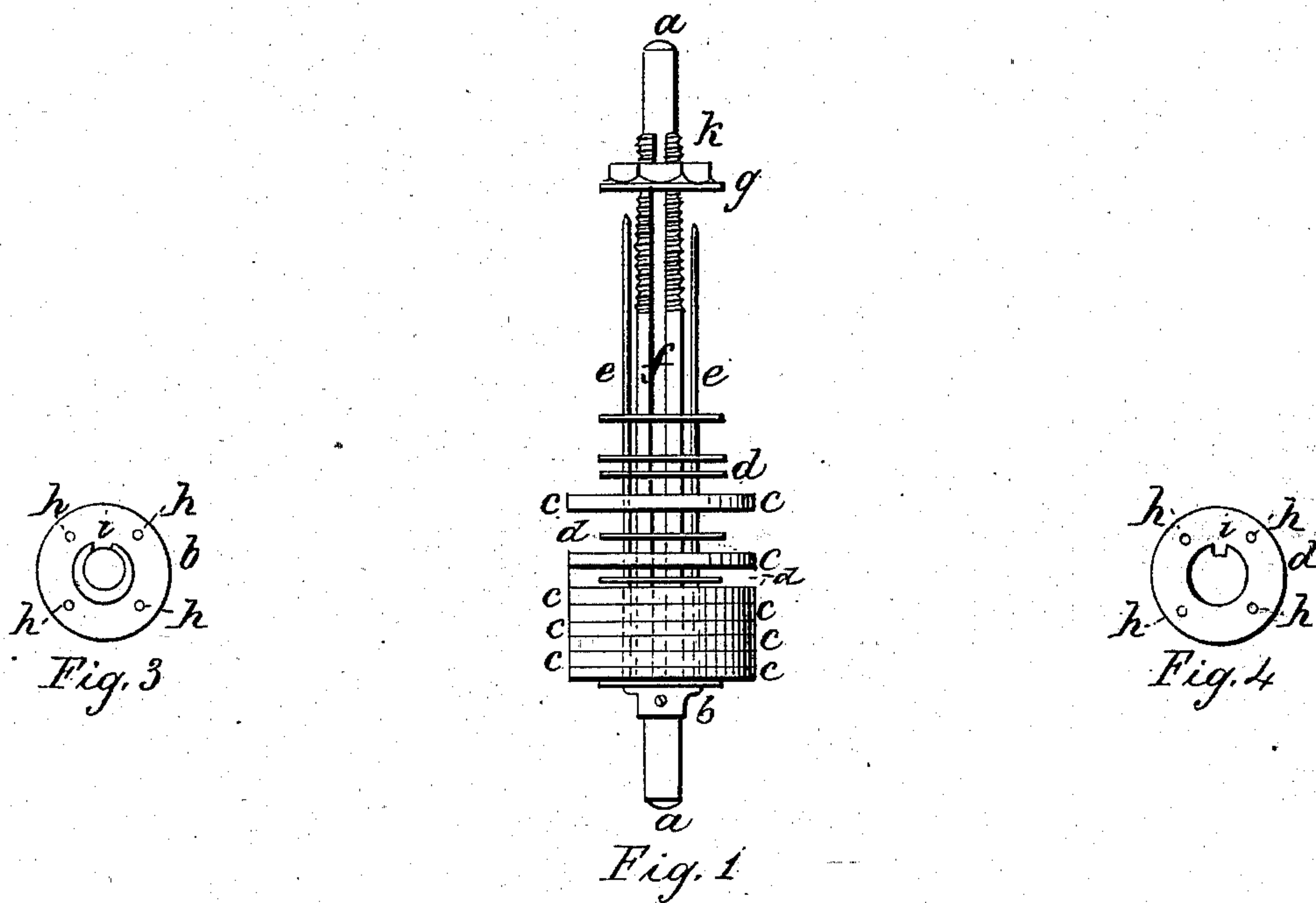


W. DEARBORN.

Making Rubber Rollers for Cotton Gins.

No. 68,052.

Patented Aug. 27, 1867.



Witnesses

Thos. W. L. Brown  
Chas. J. Bateman

Inventor  
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# United States Patent Office.

WYMAN DEARBORN, OF BOSTON, MASSACHUSETTS.

*Letters Patent No. 68,052, dated August 27, 1867.*

## IMPROVEMENT IN THE CONSTRUCTION OF RUBBER ROLLERS FOR COTTON-GINS.

*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, WYMAN DEARBORN, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Construction of Rubber Rollers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing, forming a part of this specification.

Rubber rollers are used for very many purposes; they form a very important part of wringing machines, of some washing machines, of roller cotton-gins, of some paper machines, and are, in fact, a very common, we may almost say, staple commodity. But when constructed of solid rubber, vulcanized upon a spindle, they are difficult and expensive to make, and are easily destroyed.

By my method of construction, however, I preserve the required elasticity, produce a roller more firm upon its spindle, save more than one-half the first cost, and have an article which can be repaired in any part of its length. In the drawing—

Figure 1 represents the roll in process of construction.

Figure 2 is an elevation of it when finished.

Figure 3 is a plan of the clamping-plates.

Figure 4 is a plan of the metallic washer, and

Figure 5 is a plan of the elastic washer.

Like letters indicate like parts in all the figures.

I take a metallic spindle, *a*, cut in it a longitudinal groove, *f*, and arrange suitable arms or journals at the ends. I then attach to it firmly a hub or clamping-plate, *b*, having stays or wires *e* fastened in holes *h*, and extending up parallel with the spindle. I then prepare disks *c* of rubber, and *d* of sheet metal, each having a central hole with a tongue, *i*, projecting, and being pierced with small lateral holes *h*. These disks I slip upon the spindle, sliding tongue *i* in groove *f*, and passing wires *e* through holes *h*, cementing the rubber rings to each other or not, according to the use to which the completed roll is to be put. These disks I place alternately, having a metallic disk between each two of rubber; and when my roller is long enough, I compress the rubber and metal disks as tightly as possible together, and clamp by plate *g*, which may be screwed down or driven by a key in a slot or other common device.

I am aware that John Critcherson made in 1862 a roll of alternate disks of felt and metal, and that H. E. Smith, in 1866, made a corrugated roll of alternate disks of rubber and cloth, fixed by rigid washers on a shaft, and therefore I do not claim either of these devices; but I do claim—

The washers *d*, fixed on spindle *a* and rotating with it by tongue *i* fitting in groove *f*, arranged alternately with elastic disks *c* on said spindle, and clamped together to substantially form a solid roll by clamping-plates *b* and *g*, as shown, and further held by wires *e* parallel to said spindle, substantially as described.

WYMAN DEARBORN.

Witnesses:

THOS. WM. CLARKE,

CHAS. J. BATEMAN.