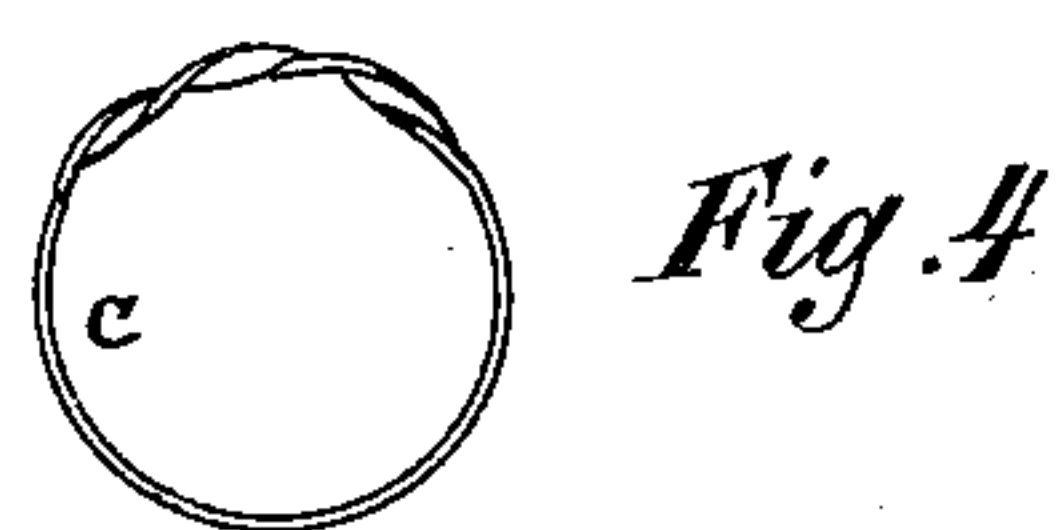
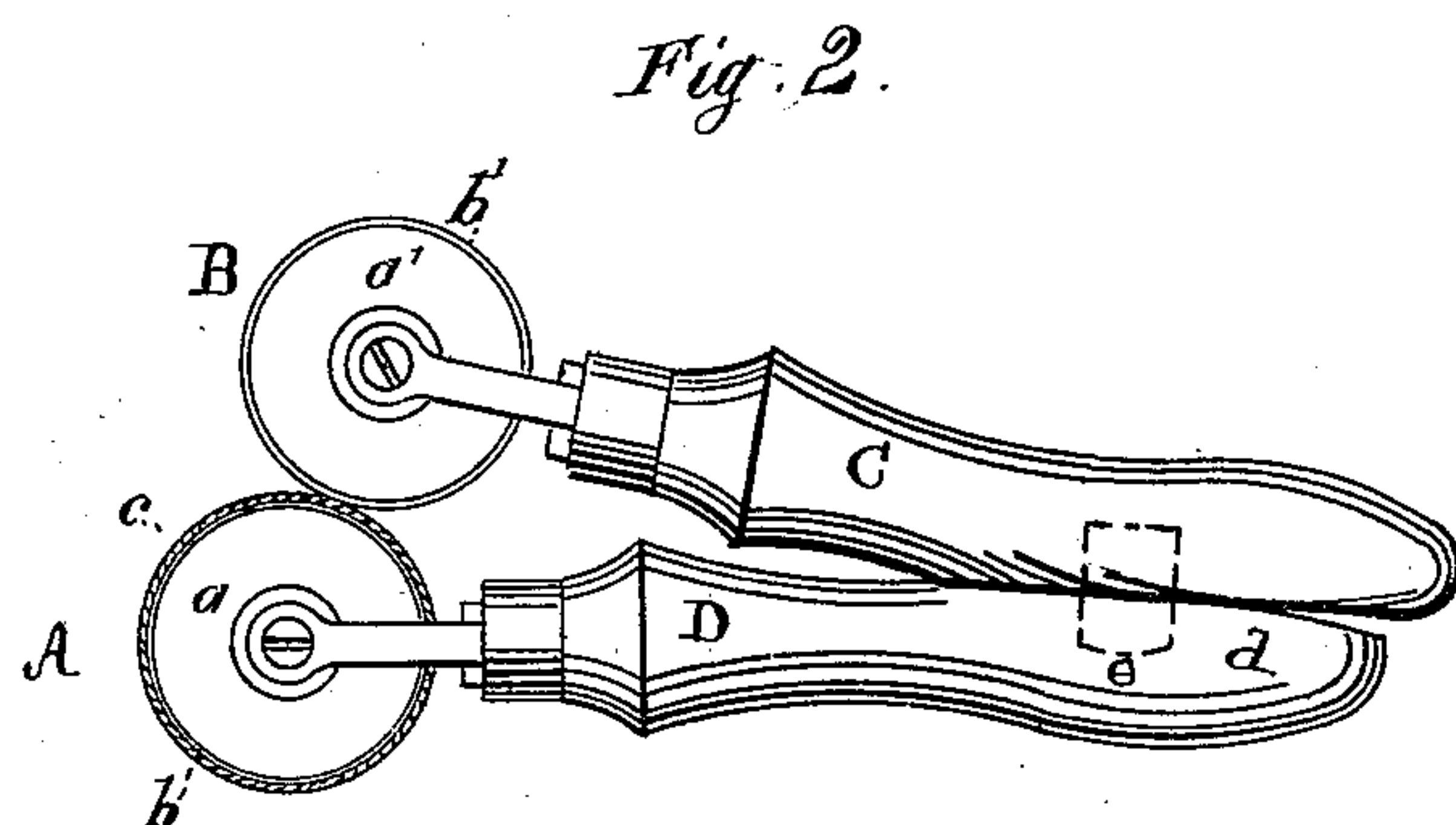
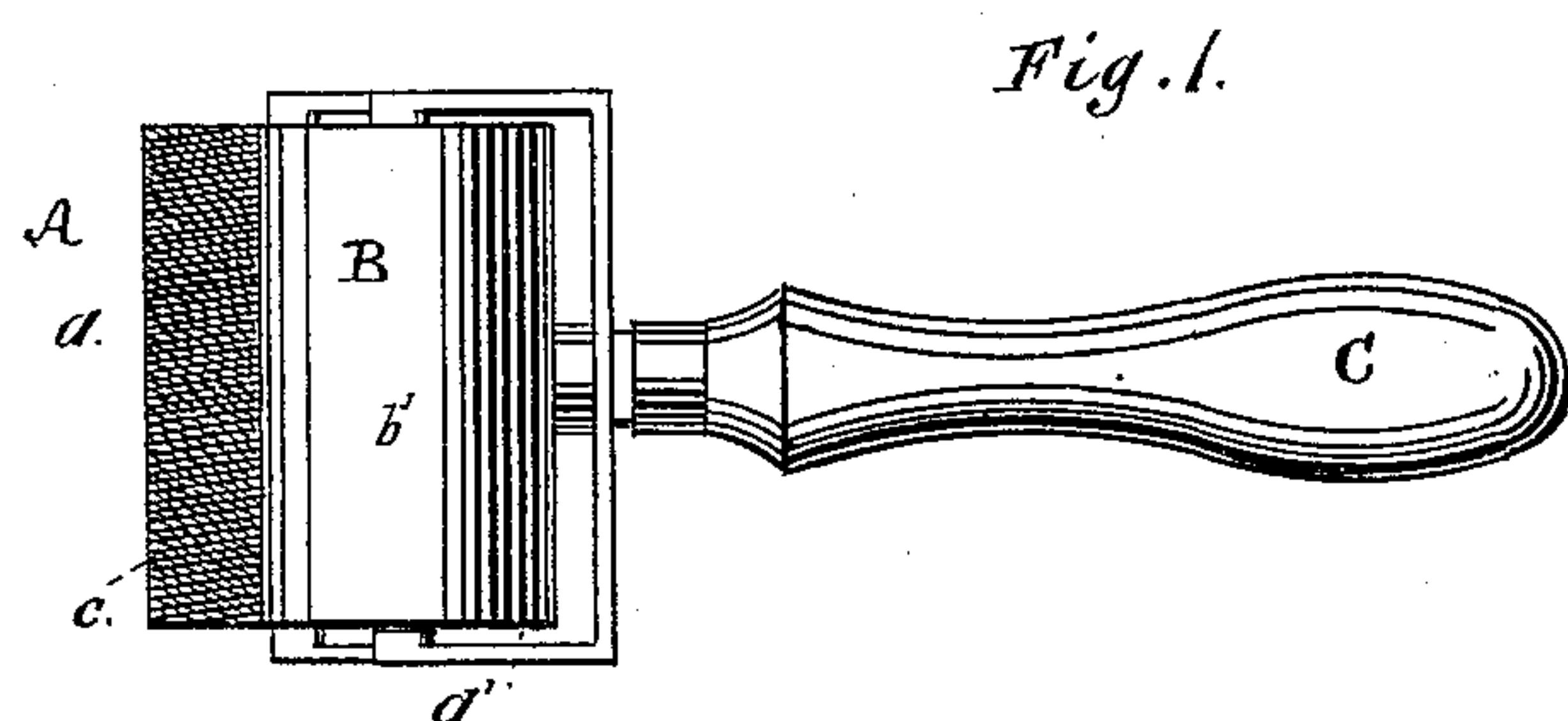


J. R. CROSS.
GRAINING-MACHINE.

No. 191,318.

Patented May 29, 1877.



Witnesses:
L. L. Bond
O. W. Bond.

Inventor:
John R. Cross

UNITED STATES PATENT OFFICE.

JOHN R. CROSS, OF CLEVELAND, OHIO.

IMPROVEMENT IN GRAINING-MACHINES.

Specification forming part of Letters Patent No. **191,318**, dated May 29, 1877; application filed May 14, 1877.

To all whom it may concern:

Be it known that I, JOHN R. CROSS, of Cleveland, Cuyahoga county, State of Ohio, have invented certain new and useful Improvements in Graining-Machines, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a top view; Fig. 2, a side view; Fig. 3, a section of the braided or twisted cord enlarged; Fig. 4, a modification in the braiding of the cord.

The object of this invention is to place a hard-finished surface over or around the body of the graining-roller, so that, while the body of the roller will yield to conform to the inequalities of the surfaces to be grained, the exterior form of the roller will maintain its integrity; and to so arrange the graining-roller with a color-roller that the two may be used together, or the graining-roller separately, as may be desired.

In the drawings, A represents the graining-roller; B, the color-roller; C D, the handles; *a a'*, the elastic body of the rollers; *b*, the cloth covering; *c*, the cord or hard covering; *b'*, the flannel covering of the color-roller; *d*, the bevel on the handle; *e*, the pivot or pin.

The rollers A B are set in frames provided with handles C D, as shown. The interior or central portion of the rollers is made of wood or other hard substance, so as to hold the frame-pivots, which pivots may be made by simply inserting screws through the frame and screwing them into the wood or hard center.

The body *a a'* of the rollers is preferably made of a composition of glue and glycerine, such as is used for the manufacture of printers' rollers. The most convenient mode of manufacturing them is to take tubing of the proper size, center the wood by the ends or caps of the tubing, and pour in the glue and glycerine, and afterward cut the rolls into suitable lengths. The roller B is then covered with a flannel covering, *b'*, which finishes it.

The roller A is first covered with a strip of cotton or other suitable cloth, *b*, and is then wound with a braided cord, *c*. This cord is braided as shown in the enlarged view, Fig. 3, and is then sized with a glue or shellac sizing, which makes it hard, and causes it to retain its conformation in use.

The projection of the braid in the form shown in Fig. 3 will give the appearance of the grain or pores of French walnut. Different braidings will give different grains or pores. A braid such as is shown in Fig. 4 will give partly short grains and partly long grains or pores.

The roller A may be used separately; but the most convenient way of using this device is to use the two rollers together, as shown.

By beveling off the handle D at *d* the two rollers may be thrown into or out of contact, according as the two handles are grasped forward or back of their connection. The same result may be produced by making the pin *e* slightly longer than the depth of the opening or slot in the handle D, in which it is placed. This pin *e* prevents slipping, and keeps the two rollers in their proper relative positions.

The purpose of throwing the rollers out of contact is to charge the color-roller with paint or other coloring matter. The flannel covering *b'* receives the coloring matter and distributes it evenly over the graining-roller.

A twist of four strands will give the same form as that shown in Fig. 3; and the cords, in any of the forms, may be twisted as well as braided, as the sizing will maintain their conformation.

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

1. The roller A, constructed with a hard interior, an elastic body, *a*, a flexible lining or secondary cover, *b*, and a hard exterior cover of sized braided cord wound thereon, substantially as specified.

2. The roller B, constructed with a hard interior, a flexible body, *a'*, and a flannel covering, in combination with the roller A, substantially as and for the purposes specified.

3. The handles C D, one or both having a curved or bended side, in combination with the blade or pin *e*, so that the rollers may be brought in contact or separated as the handles are grasped in front or rear of the blade, substantially as described.

JOHN R. CROSS.

Witnesses:

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