

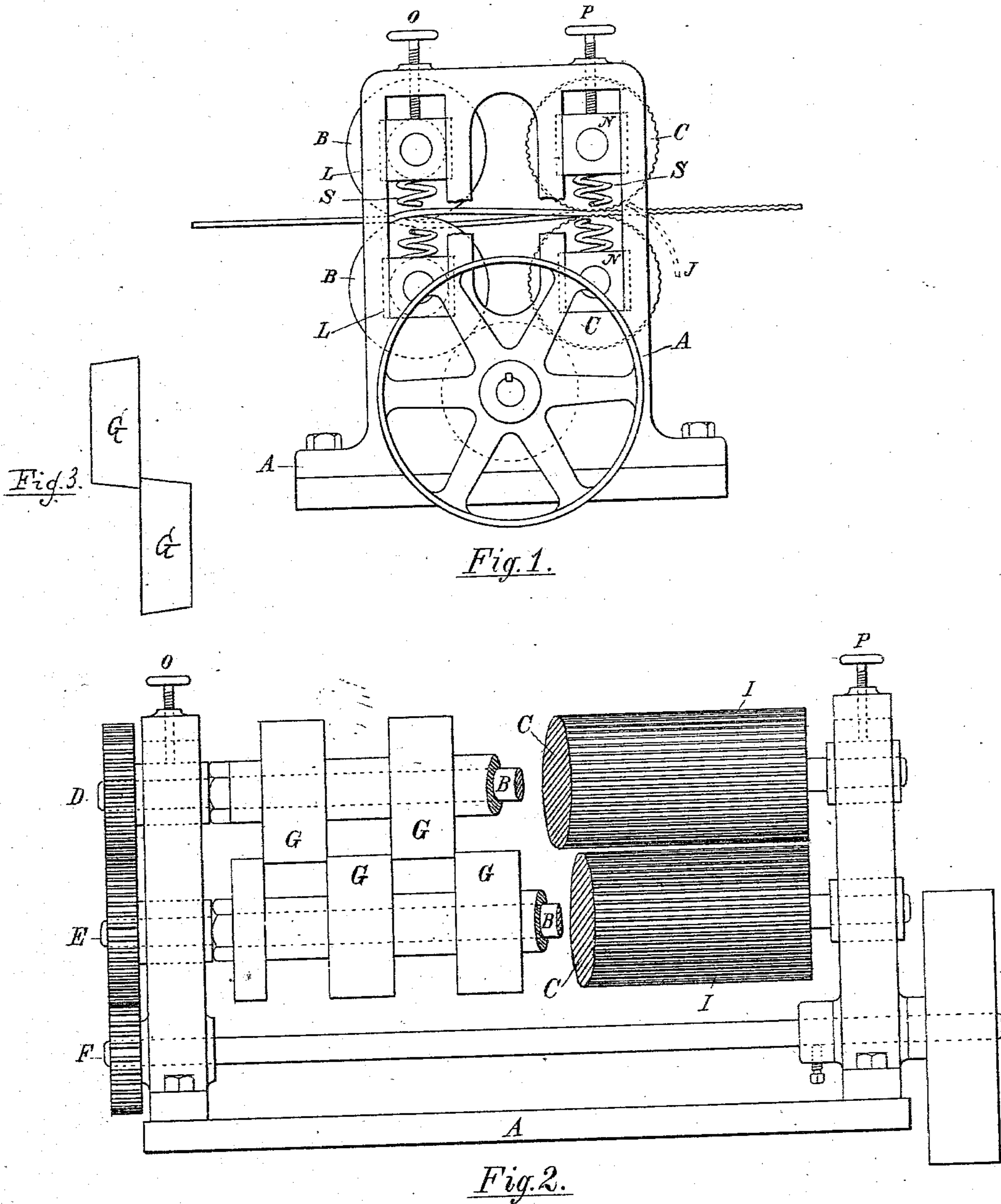
(No Model.)

B. RICE.

BEER CHIP CUTTING AND REAMING MACHINE.

No. 280,952.

Patented July 10, 1883.



WITNESSES:

H. W. Hubbard,
C. H. Crawford

INVENTOR

Bernard Rice

BY *Francis C. Bowen,*

ATTORNEY

UNITED STATES PATENT OFFICE.

BERNARD RICE, OF BROOKLYN, NEW YORK.

BEER-CHIP CUTTING AND REAMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 280,952, dated July 10, 1883.

Application filed March 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, BERNARD RICE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Beer-Chip Cutting and Reaming Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of this invention is to provide a machine for cutting and reaming wood-veneers in the manufacture of beer-chips, such as described in Letters Patent of the United States granted to B. Rice, May 16, 1882, No. 257,977; and it consists in the novel construction and arrangement of parts hereinafter described, whereby the desired purpose may be accomplished in an expeditious and superior manner.

20 This invention is illustrated in the accompanying drawings, in which Figure 1 represents an end elevation. Fig. 2 is a side elevation. Fig 3 is a detail view.

Similar letters of reference indicate corresponding parts.

25 The letter A designates the machine-frame, having mounted therein by suitable journal-boxes two cutting-rolls, B, and two reaming-rolls, C, one above the other. Each pair of rolls, B and C, is arranged in the horizontal plane of the other, and each is geared together by cog-wheels D or E, while it is geared with the other pair by a similar wheel, F, in such a manner that both pairs of rolls revolve with the same speed and in opposite directions. Each cutting-roll B is constructed with a series of circular male and female knives, G, permanently turned on the rolls, which are disk-shaped and arranged to alternate with each other, both sides of one knife being substantially in contact with one side of adjacent knives, as shown in Fig. 1. By this arrangement the knives of each roll obtain two cutting-edges and coat with two knives of the other roll in separating the veneer that may pass between them into strips, the latter corresponding in width to the thickness of the knives; and hence a maximum quantity of strips may be cut with a given number of knives. The reaming-rolls C are each constructed with longitudinal ribs I, which are arranged so that the ribs of one roll alternate with those of the other, said rolls being substantially in superficial contact.

In applying the machine to use the proper veneer is inserted between the cutting-rolls B, and thus subjected to the action of the knives G, whereby it is cut into strips, the width of which is determined by the distance between the knives, and as these strips emerge from the cutting-rolls they immediately enter between the reaming-rolls C, where they are indented or grooved by the action of the ribs I. The strips are then ready for use.

As the veneer-strips leave the reaming-rolls C, if it is desired to bend them, they are caught by a suitable deflector, J, (shown in dotted lines, Fig. 1,) arranged opposite to the lower roll, and are thereby bent or curved, which is a desideratum. The cutting-rolls B have their bearings in journal-boxes L, and the reaming-rolls in similar boxes, N, both sets of which boxes are exposed to the action of set-screw O or P and springs S, engaging the upper boxes, so that by loosening the proper screws the proper boxes of either the cutting-rolls or the reaming-rolls may be adjusted to render either pair of rolls inoperative, and hence the veneer may be cut without being indented, or vice versa.

When the rolls B are used for cutting veneers of considerable thickness, the knives G are made conical, as shown in Fig. 3, and this shape of said knives forms an important feature of my invention.

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

1. The combination of the cutting-rolls, constructed with alternating male and female disk-shaped knives permanently turned on the rolls having double cutting-edges coacting with each other, substantially as and for the purpose described.

2. The combination of the cutting-rolls, constructed with alternating male and female disk-shaped knives permanently turned on the rolls having double cutting-edges coacting with each other, and the coacting reaming-rolls, constructed with alternating longitudinal ribs, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BERNARD RICE.

Witnesses:

FRANCIS CLARE BOWEN,
C. H. CRAWFORD.