

(No Model.)

A. N. ACKERMAN.

GUDGEON ROLLER.

No. 283,551.

Patented Aug. 21, 1883.

Fig. 1.

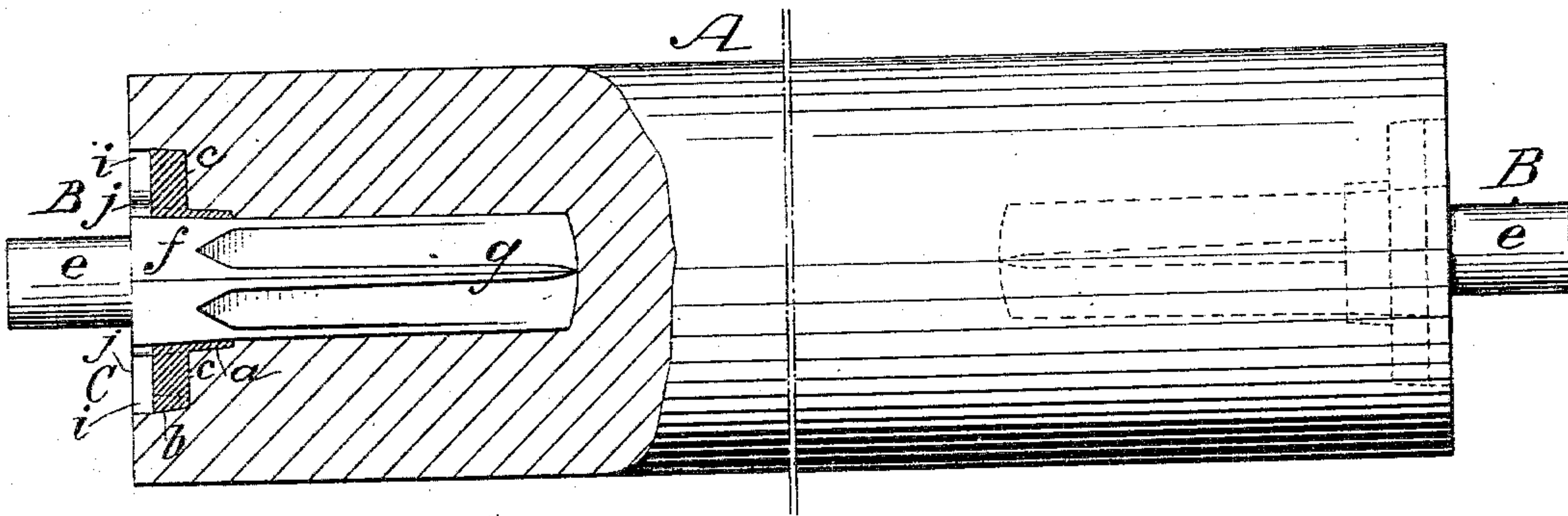


Fig. 2.

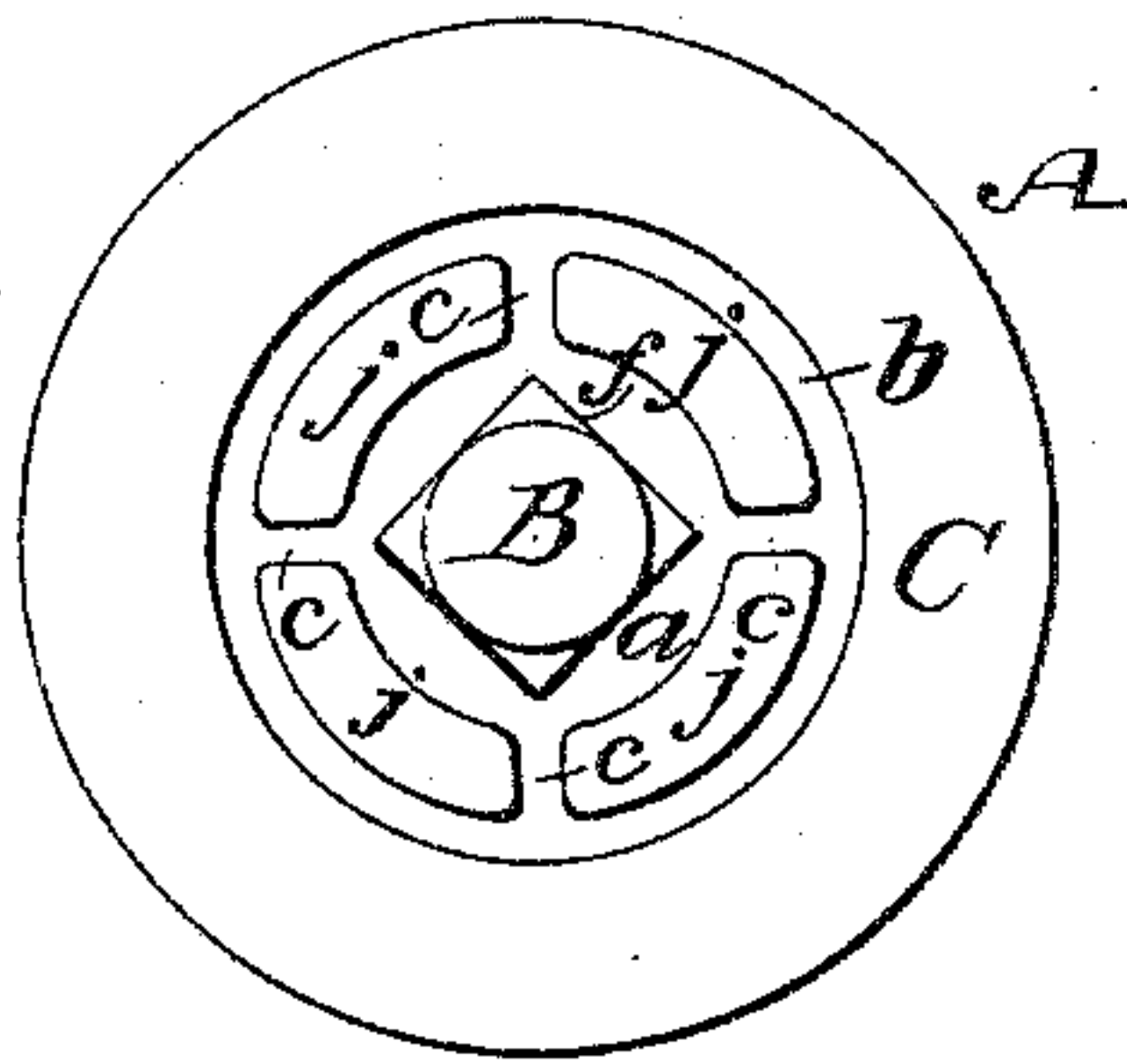


Fig. 3.

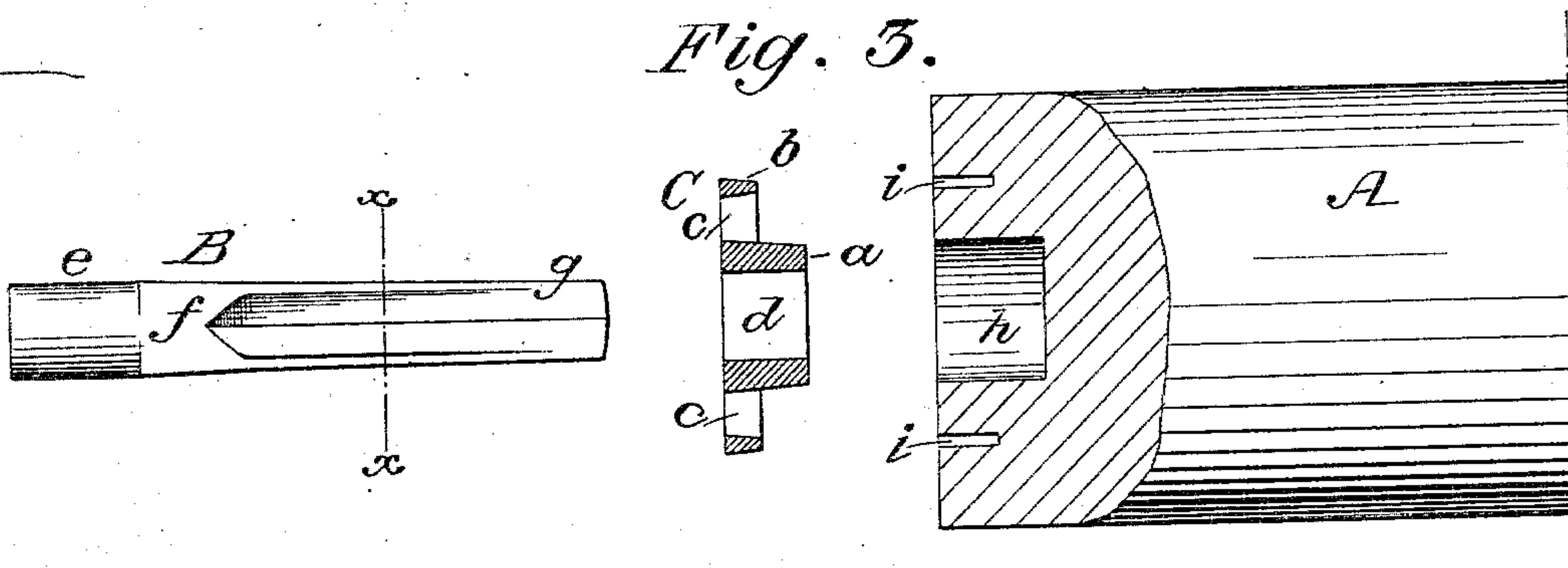


Fig. 4.



WITNESSES:

John H. Deemer
L. Sedgwick

INVENTOR:

A. N. Ackerman

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ABRAM N. ACKERMAN, OF PASSAIC, NEW JERSEY.

GUDGEON-ROLLER.

SPECIFICATION forming part of Letters Patent No. 283,551, dated August 21, 1883.

Application filed June 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, ABRAM N. ACKERMAN, of Passaic, in the county of Passaic and State of New Jersey, have invented a new and Improved Gudgeon-Roller, of which the following is a full, clear, and exact description.

This invention relates to the wooden rollers that have metal gudgeons, and known as "gudgeon-rollers," such as are used in various classes of machinery, notably in dye-boxes and soap-boxes and in other textile machinery; also in paper machinery; and the invention consists of a new form of gudgeon, and of the combination therewith of a surrounding bushing forced into the end of the wooden roller, whereby the gudgeon is held with great firmness and security and prevented from working loose in the end of the roller.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a gudgeon-roller made in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 shows the gudgeon, bushing, and roller detached; and Fig. 4 is a sectional elevation of the gudgeon, taken on the line *x* of Fig. 3.

A represents the wooden roller; B, the gudgeon, and C the bushing, which is, by preference, of the same construction as the bushing shown and described in my Patent No. 267,817, dated November 21, 1882—that is, formed with the central portion, *a*, surrounding ring *b*, and radial connecting-pins *c*, the central portion having the square or angular passage *d* made through it, as shown in Fig. 3.

The gudgeon B is formed with the round journal part *e* and square portion *f*. Beyond this square portion it might be made solid; but I prefer to form it with the blades *g*—four in number—which facilitate the entrance of the gudgeon into the end of the wooden roller, and which also prevent the gudgeon from turning in the roller.

The square portion *f* fits in the angular passage *d* of the bushing C when the parts of the roller are assembled, and in practice will be

made slightly tapering and a trifle larger than the said passage, so that when the gudgeon is forced into the end of the roller A through the bushing the central portion of the bushing will be slightly expanded, causing the bushing to take a firm grasp upon the gudgeon.

The roller A is bored at its ends, as shown at *h*, for receiving the central portion, *a*, of the bushing C, and has the circular kerf *i* formed in it around the bore *h*, for receiving the circular ring *b*; and the kerf *i* and bore *h* are, by preference, made deeper than the width of the ring *b* and central portion, *a*, of the bushing, so that when the parts are put together the bushing may be pressed in beyond the surface of the end of the roller, as shown in Fig. 1, thus giving the end of the roller an all-wood surface.

In putting the parts together the bushing C is first pressed into place in the ends of the roller A, and then the gudgeon B is passed through the passage *d* of the bushing, and then settled into the wood to the position shown in Fig. 1. In this manner the bushing holds the gudgeon with great firmness, and the ring *b* of the bushing, surrounding the portions *j* of the roller, strengthens the roller at the ends, and makes the roller, as a whole, strong and durable.

I do not abandon or dedicate to the public any patentable feature set forth herein and not hereinafter claimed, but reserve the right to claim the same either in a reissue of any patent that may be granted upon this application or in other applications for Letters Patent that I may make.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the gudgeon B, having square portion *f*, of the bushing C, having central portion, *a*, and surrounding ring *b*, substantially as described.

2. The gudgeon B, having square portion *f*, made slightly tapering, in combination with the bushing having the passage *d*, substantially as and for the purposes herein described.

ABRAM N. ACKERMAN.

Witnesses:

H. A. WEST,

C. SEDGWICK.