

(No Model.)

2 Sheets—Sheet 1.

J. F. KOMP.
BUTTER WORKER.

No. 328,411.

Patented Oct. 13, 1885.

Fig. 1.

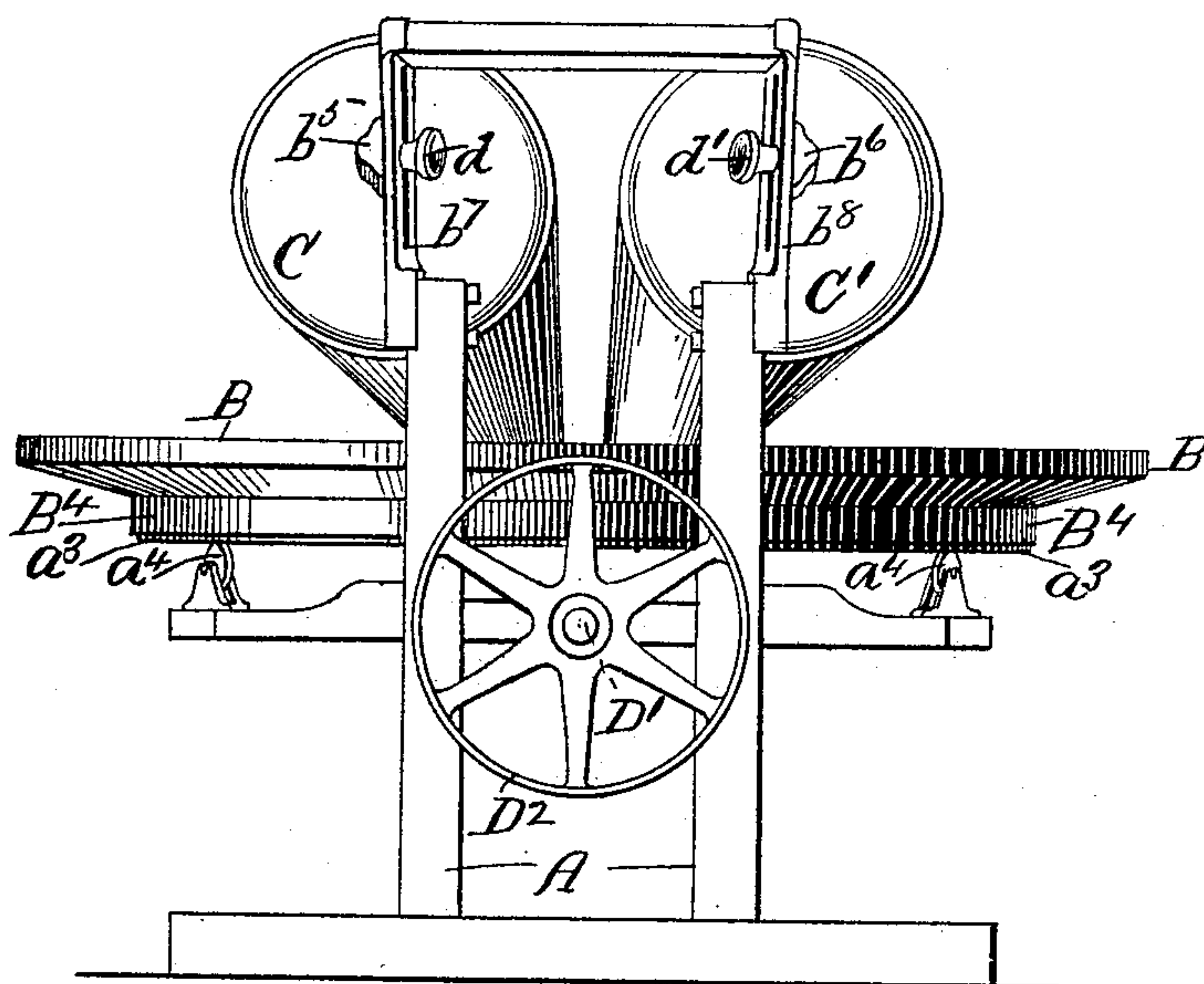
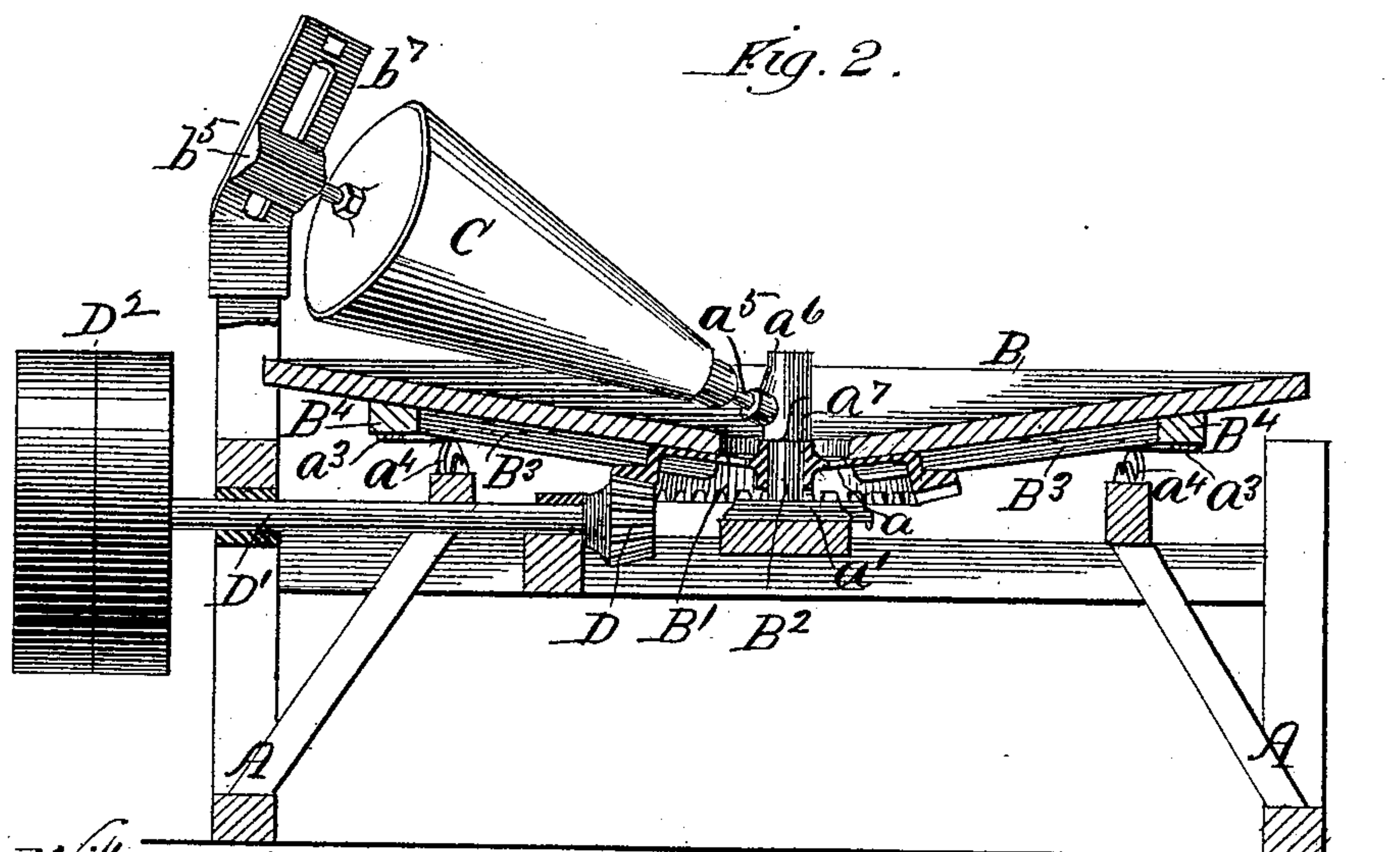


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

J. F. KOMP.
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Fig. 3.

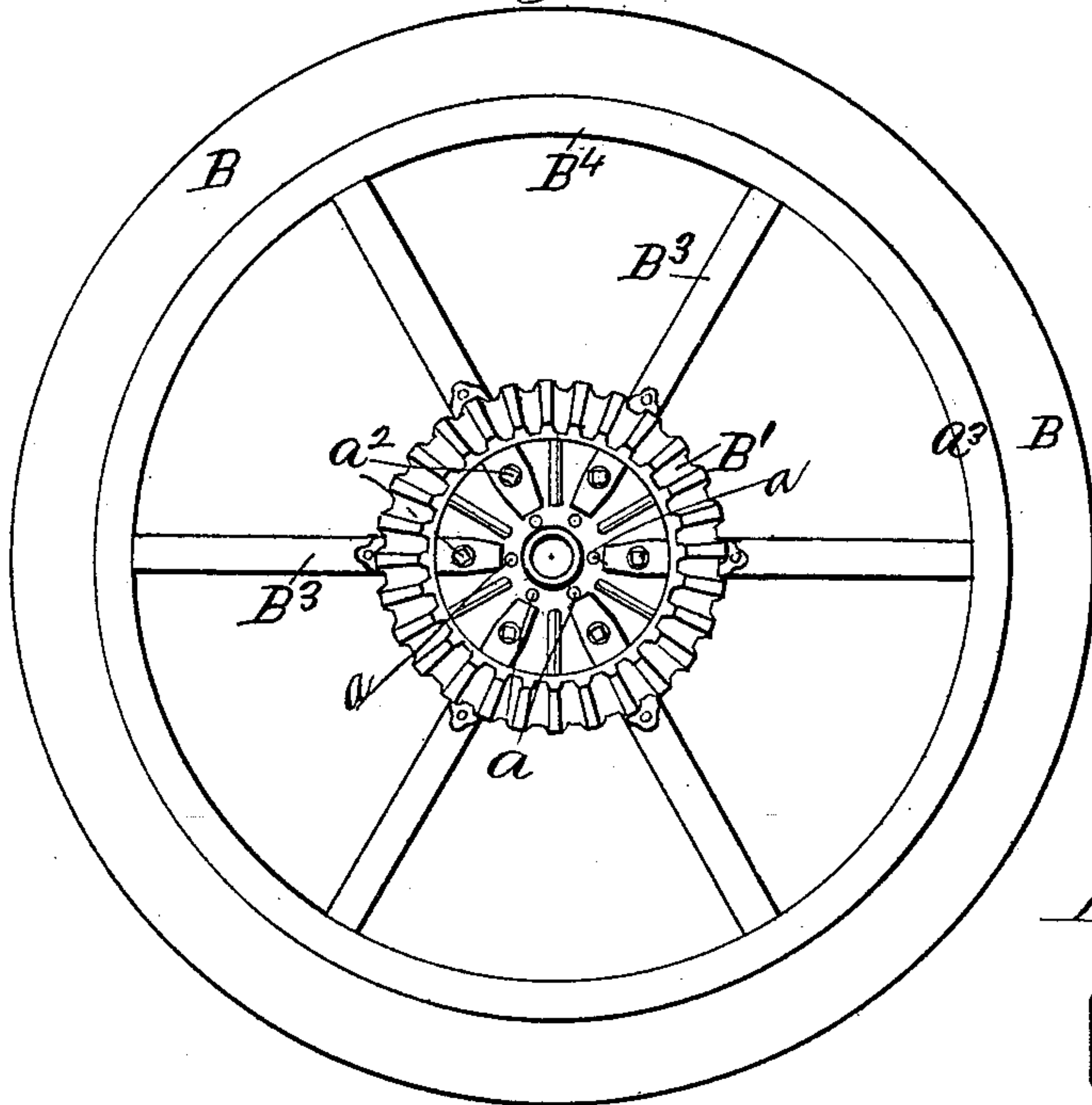


Fig. 6.

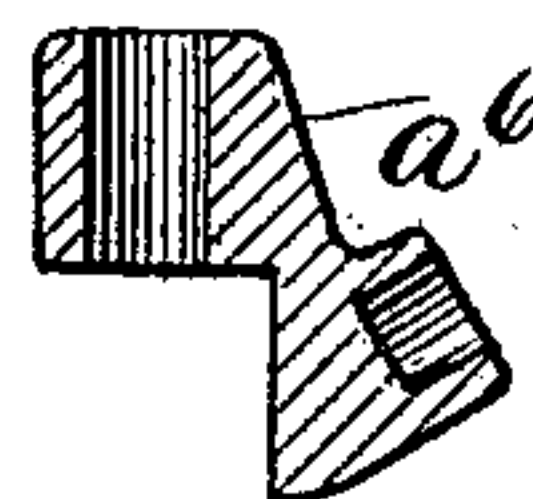


Fig. 4.

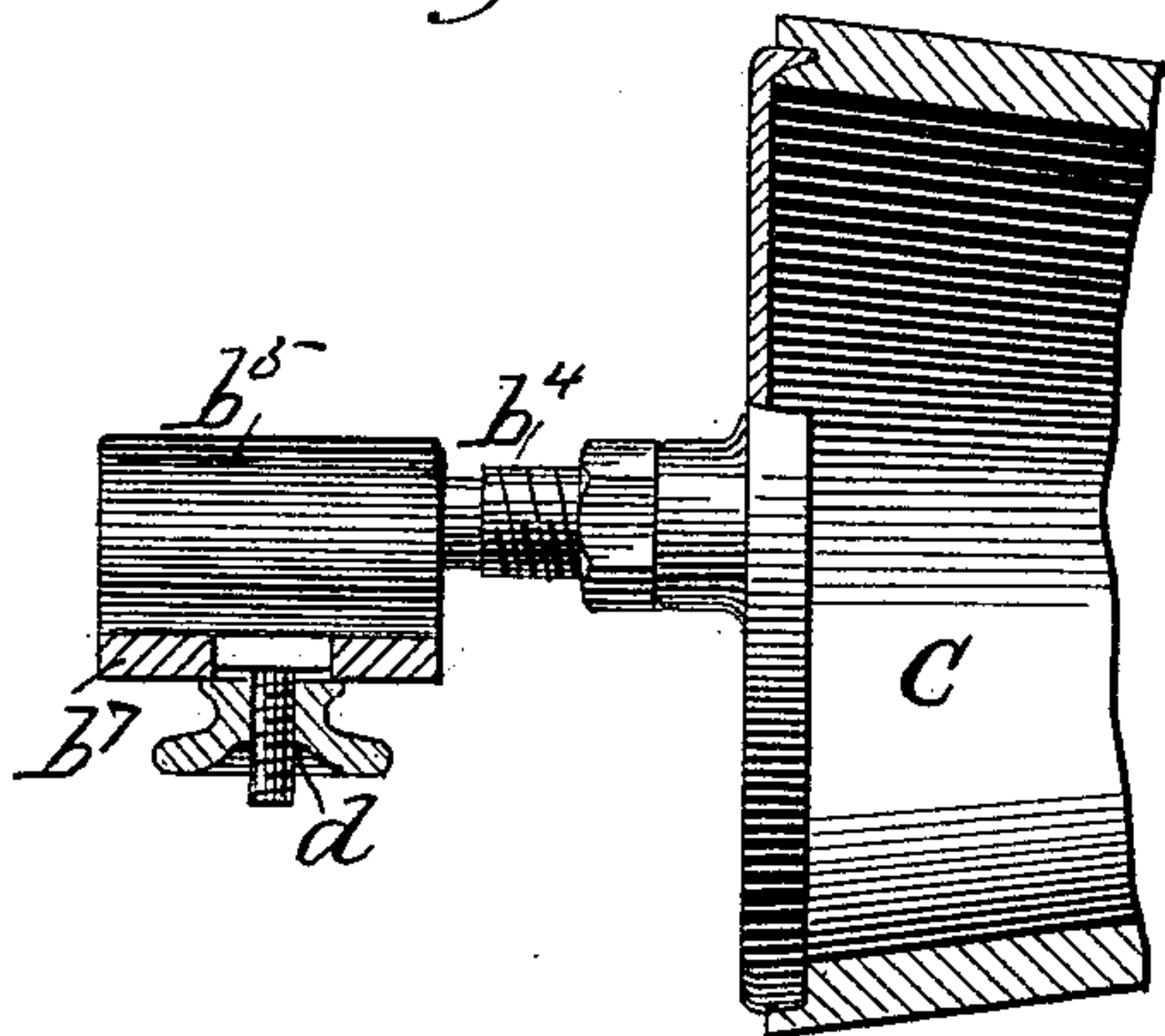


Fig. 5.

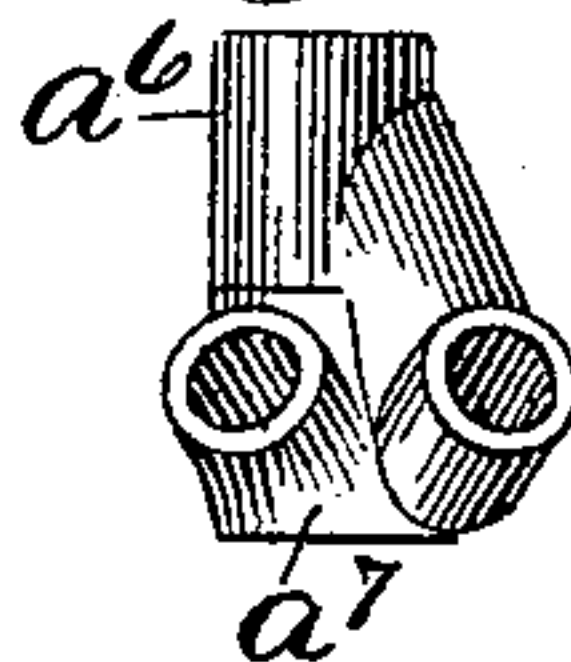
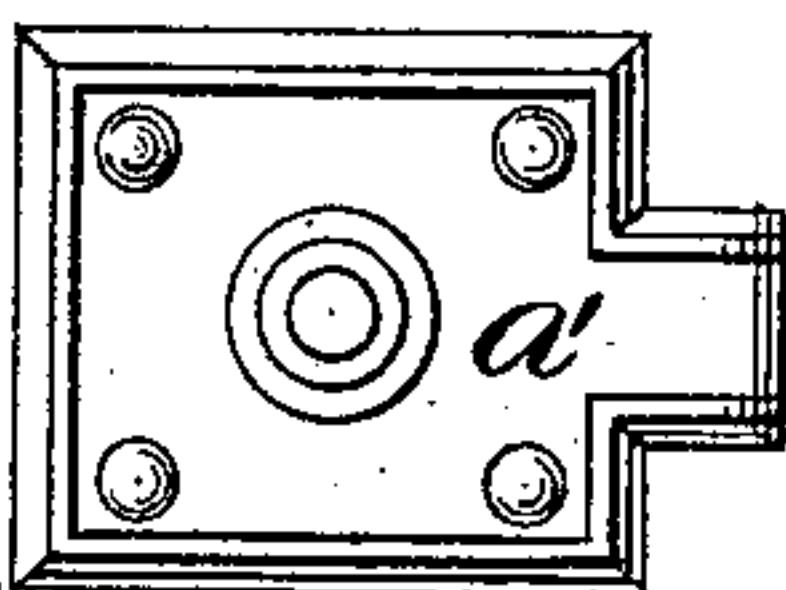


Fig. 7.



Fig. 8.



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Fig. 10.

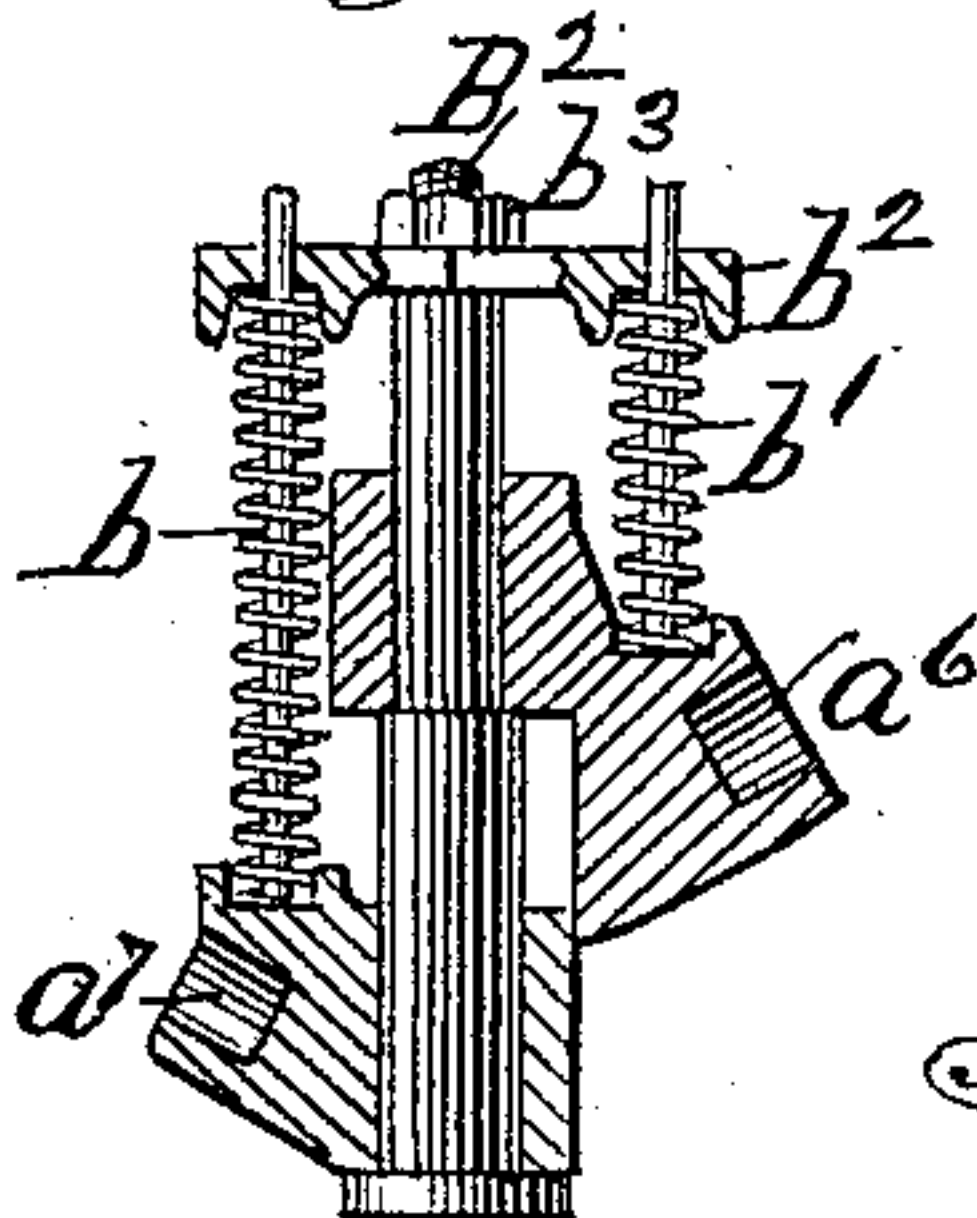
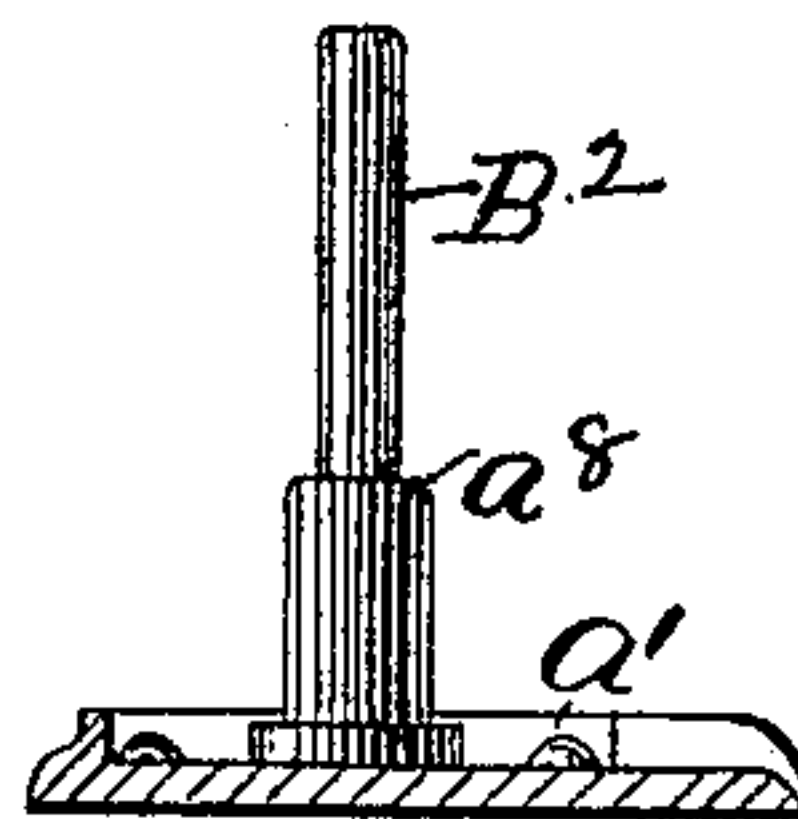


Fig. 9.



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UNITED STATES PATENT OFFICE.

JOHN F. KOMP, OF CHICAGO, ILLINOIS, ASSIGNOR TO DANIEL J. DAVIS
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BUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 328,411, dated October 13, 1885.

Application filed April 8, 1885. Serial No. 161,605. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. KOMP, of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in a Butter-Worker, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in butter-workers; and it consists of certain novel features in the construction and combination of the several parts, as will be hereinafter set forth.

Figure 1 is an elevation of a worker embodying my improved features; Fig. 2, a view showing the roller, the pinion, the shaft, and pulley in elevation and the table and frame in section, the line of section being on the same vertical plane as the shaft shown in this figure and in Fig. 1; Fig. 3, a view of the under side of the revolving table; Fig. 4, a broken-away sectional view of one of the working-rollers, and Figs. 5, 6, 7, 8, 9, and 10, detached views of details of construction.

Referring to the drawings, A represents the supporting frame-work, which may be of any convenient form.

The disk-shaped horizontal revolving table B is of a circular form, and has the working-surface inclined toward the center of its axis, the liquids expressed from the butter gravitating to the center and escaping through the series of apertures *a* into the drip-trough *a'*, located underneath, as shown in Fig. 2. This trough is also shown in plan in Fig. 8, and in section in Fig. 9.

The beveled gear-wheel B' is rigidly secured to the under side of the working-table, and is provided with a bearing on the vertical shaft B², a detached view of which is shown in Fig. 9. The web of this gear-wheel is slotted for the insertion of the inner ends of the radial bracing and strengthening arms B³, which are also rigidly secured by bolts or screws *a*². The outer ends of the arms B³ are secured to the rim B⁴, which is in turn fastened to the under side of the working-table near the outer edge, as shown in Fig. 3. By this construction the working-table is prevented from warping or

getting out of shape from the pressure of the rollers C C', the pressure of which on the outer edge has a tendency to spring the center of the table upward.

The underside of the rim B⁴ is provided with a continuous metallic strip or track, *a*³, which has frictional contact with a number of rollers, *a*⁴, mounted and supported in suitable bearings, as shown in Figs. 1 and 2. This arrangement provides a rolling frictional support for the outer part of the table, thereby lessening the friction and enabling the table to revolve more easily and with less power.

The inner ends of the conical rollers C C' are provided with a suitable bearing-spindle, *a*⁵, which is inserted in the angular socket-bearing boxes *a*⁶ *a*⁷, mounted on the vertical shaft B². Fig. 5 shows the relative position and form of these boxes, Fig. 6 being a vertical central section of the upper box, *a*⁶, and Fig. 7 a similar view of the under or companion box, *a*⁷. The shoulder *a*⁸ on the vertical shaft B² prevents these boxes from passing below that point. The box *a*⁷ consists of a tubular section, which passes over the vertical shaft B² and rests upon the shoulder *a*⁸, and a socket for the spindle of roller C. The box *a*⁶ also consists of a tubular section, which passes over the vertical shaft B² and a pendent socket for the inner spindle of the roller C'. The inner ends of these working-rollers are made automatically adjustable in a vertical plane by means of the spiral springs *b* *b*¹, the lower ends of which have a bearing on the upper side of the boxes *a*⁶ *a*⁷, and the upper ends against the under side of the cross-bar *b*², adjustably secured in place on the upper end of the shaft B² by the threaded nut *b*³, as shown in Fig. 10. By this means the conical working-rollers are adapted to adjust themselves when coming in contact with any uneven masses of butter. The outer ends of these conical rollers are provided with the spindles *b*⁴, having bearings in the boxes *b*⁵ *b*⁶, adjustably secured to the brackets *b*⁷ *b*⁸ by the hand-screws *d* *d*¹. These brackets are slotted, so as to permit of the rollers being raised or lowered by hand, as circumstances may require.

The working-table is made to revolve by means of the beveled pinion D, engaging with the gear-wheel B', as shown in Fig. 2. This

pinion is mounted on the inner end of the horizontal shaft D' , which has suitable bearings in the frame-work. The band-pulley D^2 is mounted on the outer end of the shaft D' , and
5 receives the belt connecting with the motive power.

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

10 1. In a butter-worker, the combination, with a revolving table, of a gear-wheel rigidly secured to the under side of said table, radial arms, the inner ends of which are secured to said gear-wheel, and a rim secured to the under side of said table and inclosing the outer
15 ends of said arms, substantially as set forth.

2. In a butter-worker, the combination of a frame, a dish having a central opening, a vertical shaft projecting through said opening, the box a^7 , having a socket, the box a^6 , having
20 a downward projection provided with a socket, and the rollers journaled in said frame and socket, substantially as described.

3. In a butter-worker, the combination of a frame, a dish, the vertical shaft, the angular
25 bearing-boxes, the spiral springs b and b' , the cross-bar b^2 , and the rollers journaled in the frame and boxes, substantially as described.

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Witnesses:

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