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Patented Apr. 29, 1902.

J. MURDOCK, JR. & L. S. MURDOCK.
METAL SHELL BAND AND CAP.

(Application filed Oct. 30, 1901.)

(No Model.)

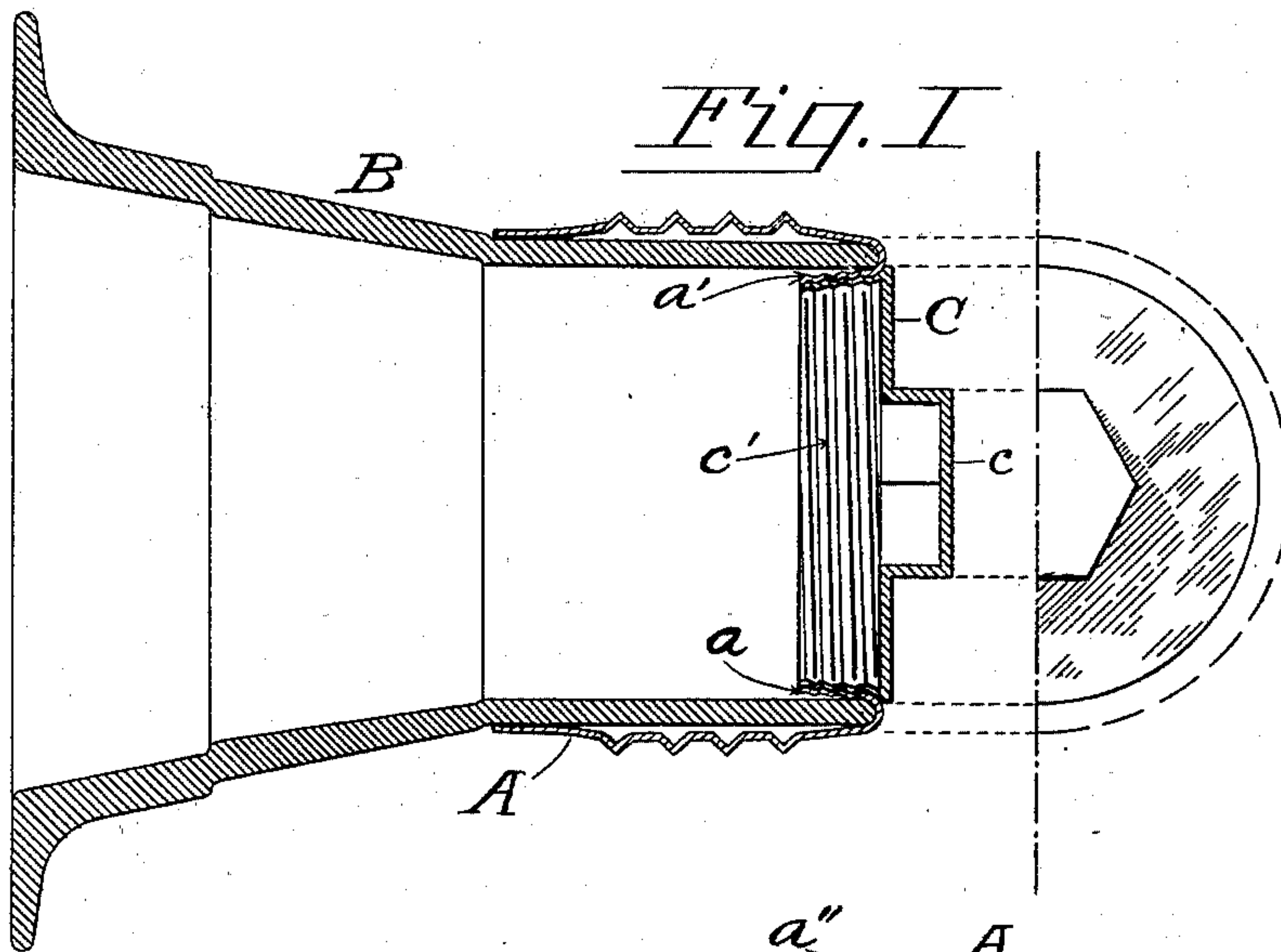


Fig. II

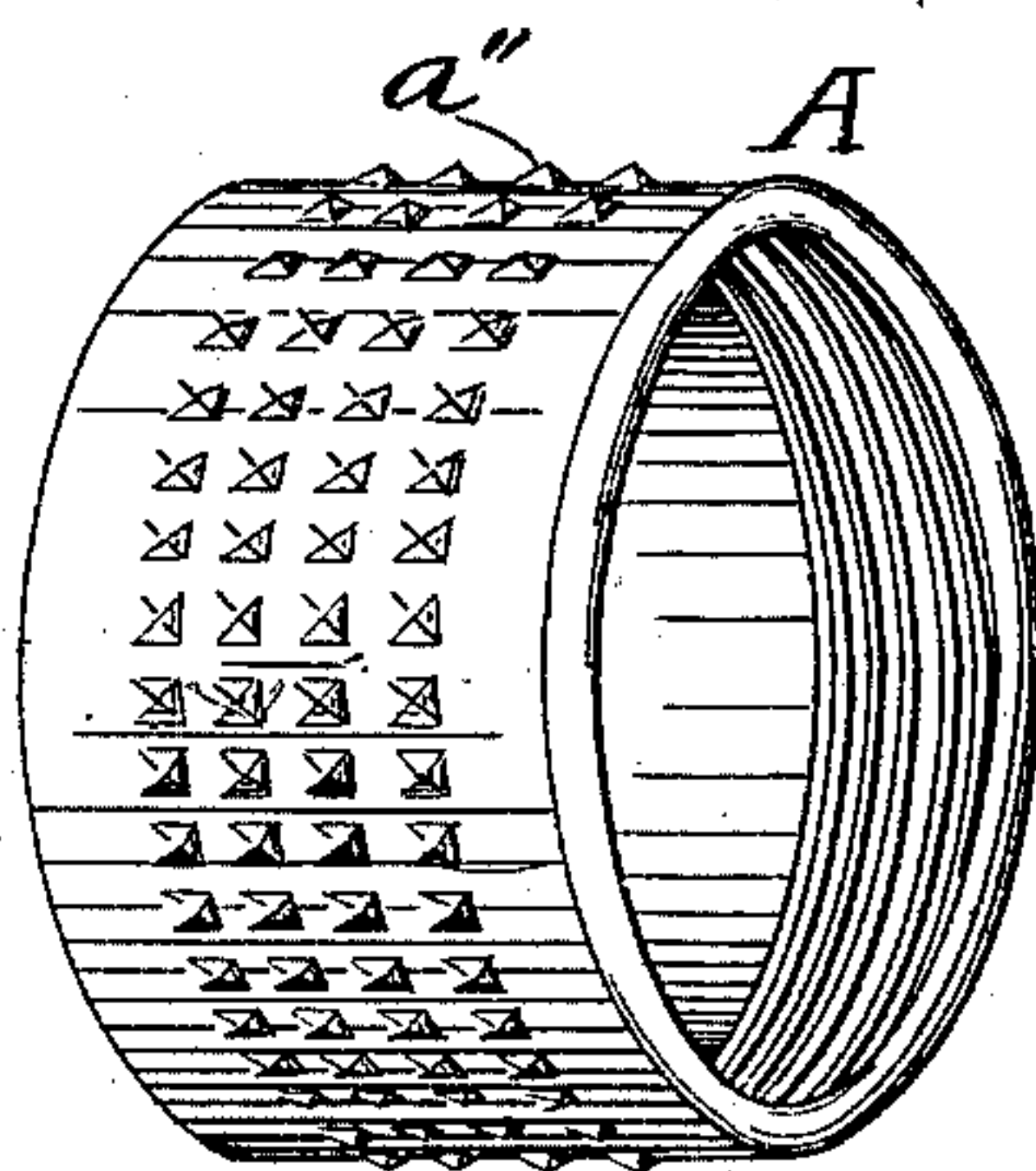


Fig. III

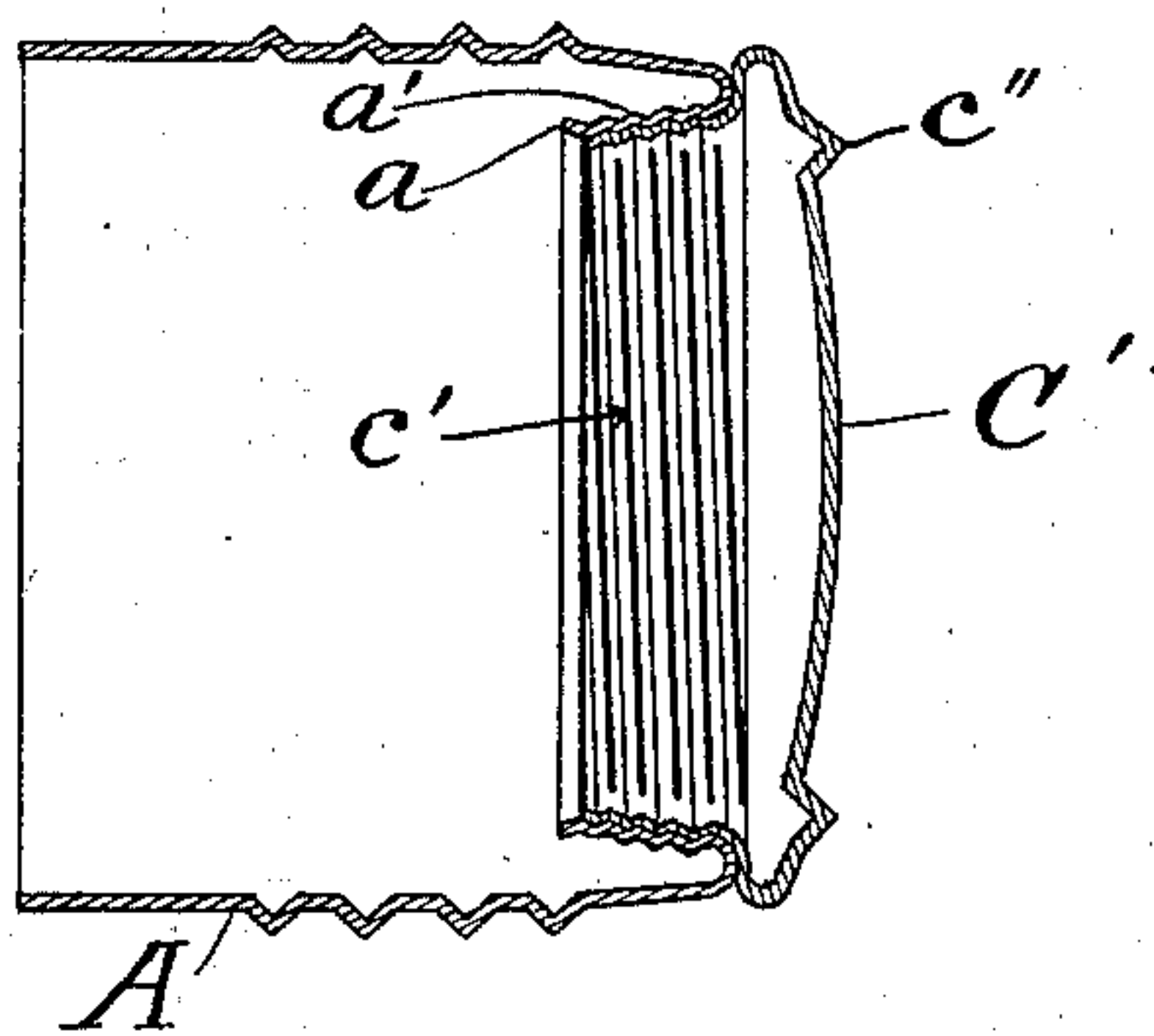
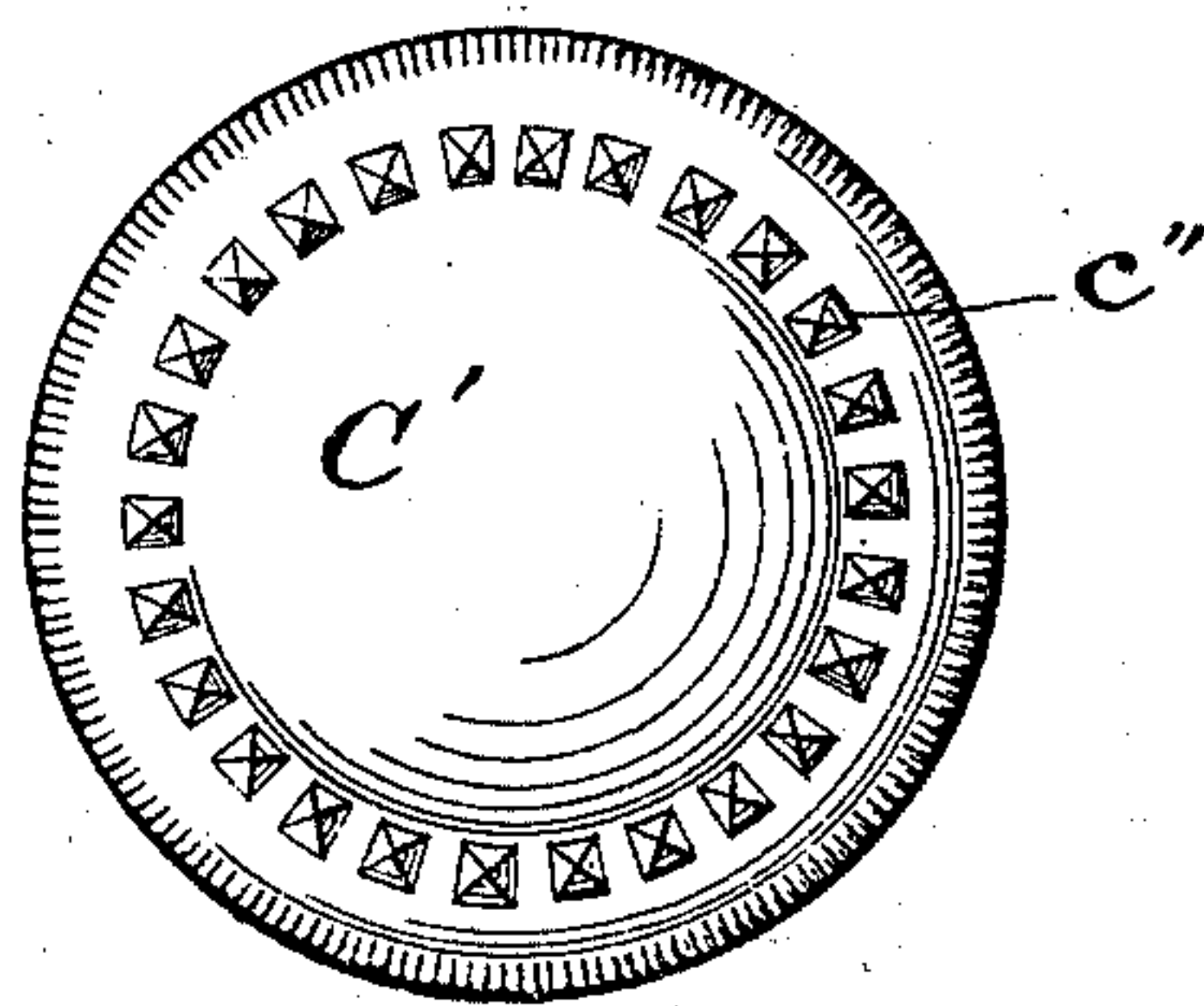


Fig. IV



Witnesses,
Attest

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UNITED STATES PATENT OFFICE.

JAMES MURDOCK, JR., AND LUKE S. MURDOCK, OF CINCINNATI, OHIO.

METAL SHELL-BAND AND CAP.

SPECIFICATION forming part of Letters Patent No. 698,537, dated April 29, 1902.

Application filed October 30, 1901. Serial No. 80,500. (No model.)

To all whom it may concern:

Be it known that we, JAMES MURDOCK, JR., and LUKE S. MURDOCK, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sheet-Metal Shell-Bands and Caps, of which the following is a specification.

Our invention relates to improvements in thin sheet-metal ornamental shell-coverings for cast-metal flanges, point-bands, &c., on the hubs of vehicle-wheels, and in dust and mud caps adapted for use with said sheet-metal shell-bands.

The object of our invention is to so construct the sheet-metal shell-bands as to be adapted for ready and convenient use with various styles and makes of hub-flanges and point-bands and to so form the shell-band and cap therefor as to be easily and quickly secured together in such a manner as to form a very tight dust-proof joint and which will not work loose or rattle, being also extremely cheap to manufacture.

Our invention consists in providing a sheet-metal shell-band with an inturned flange upon its outer end, said flange being formed of resilient material and having threads spun therein for the purpose of giving it a finished and ornamental appearance, adding strength, and for securing a threaded dust and mud cap thereto when desired.

Our invention also consists in providing the sheet-metal shell-band with pyramid knurls and the cap with a nut formed integral therewith and also a knurled edge for ornamentation and to afford ready means for screwing or unscrewing the cap.

Our invention also consists in the parts and combination and arrangement of parts, as more fully described and shown, and as particularly pointed out in the claims.

In the accompanying drawings, which serve to illustrate our invention, Figure 1 is a longitudinal central section of a cast-metal wheel-hub flange having our preferred form of sheet-metal shell-band and cap applied thereto, showing also a plan view of a section of the cap. Fig. 2 is a perspective view of our improved sheet-metal shell-band. Fig. 3 is a longitudinal section showing a modification of our

improved cap, and Fig. 4 is a plan view of the same.

The sheet-metal shell-band A has at its outer end an inturned flange *a*, provided with threads *a'*, spun therein to ornament and strengthen the same and to give a finished appearance thereto. Upon the outer surface of the band we preferably form a series of pyramid knurls *a''*, arranged in parallel rows circumferentially of the band to ornament and strengthen it and to furnish a suitable and safe rest for the foot in stepping thereon. This thin sheet-metal shell-band is formed of substantially uniform diameter throughout its length and is driven upon the cast-metal flange B, which usually tapers toward its outer end, so that by driving the sheet-metal shell-band thereon to the position shown in Fig. 1 it is caused to spread, and thus be securely held in place by friction of the parts, as shown. If desired, the sheet-metal shell-band may be used upon the flange or point-band alone and be complete in appearance without the cap. When it is desired to use a cap, we prefer to construct and apply it as shown by C in Fig. 1, it being provided with a nut *c*, formed integral therewith, to afford a means of turning and having threads *c'* to engage threads *a'* of flange *a*. We have also shown another form, the periphery of the cap C' being cross-knurled, making the surface rough for the purpose of turning the cap by hand, as shown in Fig. 4. This modified structure also has a circular row of pyramid knurls *c''*, which resemble those of the sheet-metal shell-band.

By spinning the flange *a* in the position shown enables us to apply it to cast-metal flanges and point-bands of varying thickness without interfering with the normal position of said flange *a*. This enables us to screw the cap on without difficulty, and it is firmly held in place and from rattling by the spring qualities which it contains until removed by hand or wrench.

We claim—

1. A sheet-metal shell-band provided with an inturned tapering spring-flange having formed therein a spiral thread extending from its outer fixed end to its inner free end, substantially as set forth and for the purposes specified.

2. The combination with a wheel - hub flange, of a detachable sheet-metal shell-band adapted to be driven thereon, an intumed threaded resilient flange upon the outer end
5 of said sheet-metal shell-band and a dust and mud cap adapted to be screwed therein, substantially as set forth.

3. A sheet-metal shell-band formed with a series of pyramid knurls upon the outer circumference of the band, substantially as set
10 forth.

4. A threaded cap having a knurled edge, the outer surface of the cap bulging outwardly toward the center and a circular row of pyra-

mid knurls arranged around said bulged portion and between the same and the knurled edge, substantially as set forth. 15

5. A sheet-metal shell-band having a threaded portion in combination with a cap having threads adapted to engage therewith and a
20 nut formed integral with said cap for turning the same.

JAMES MURDOCK, JR.
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Witnesses:

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