

(No Model.)

C. E. TOMLINSON.
WHEEL HUB.

No. 554,464.

Patented Feb. 11, 1896.

Fig. 1.

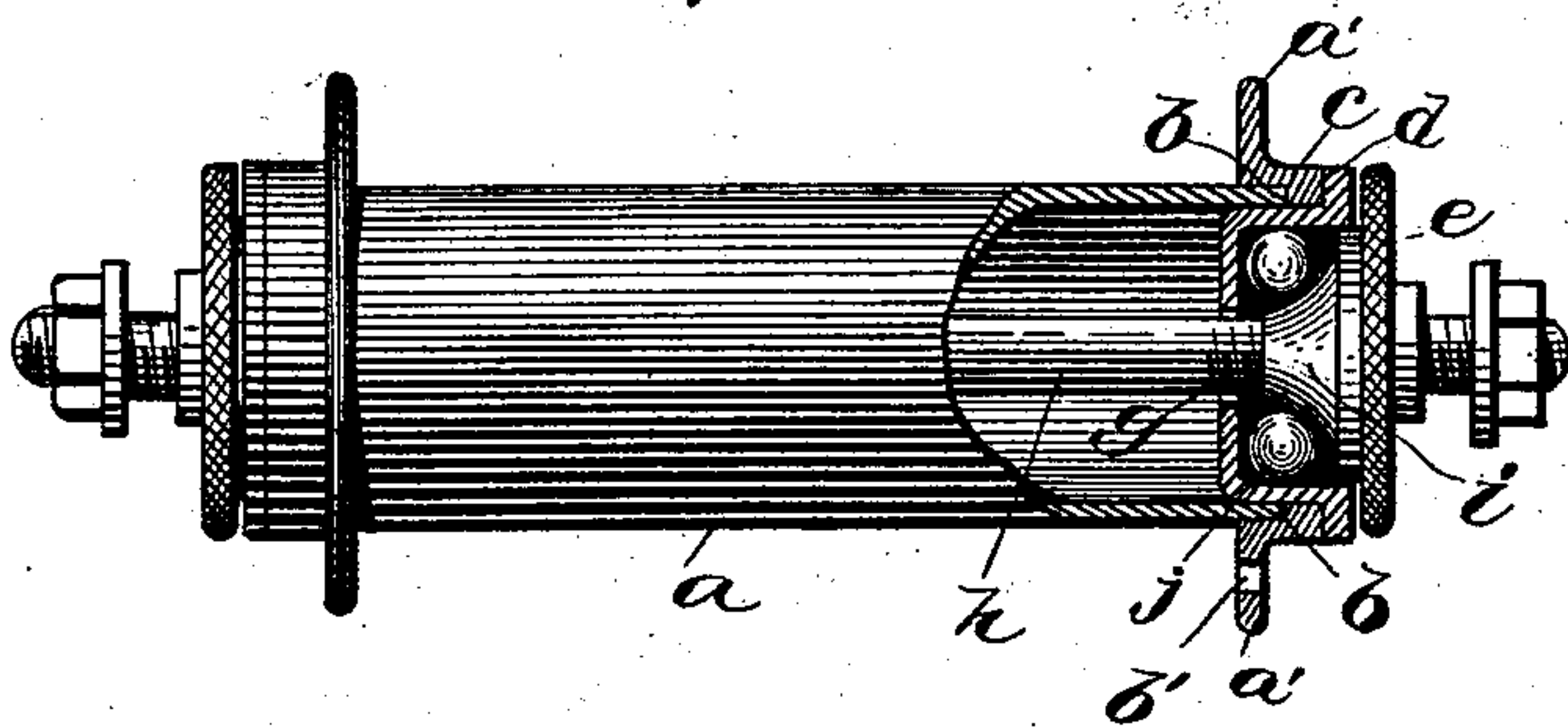


Fig. 2.

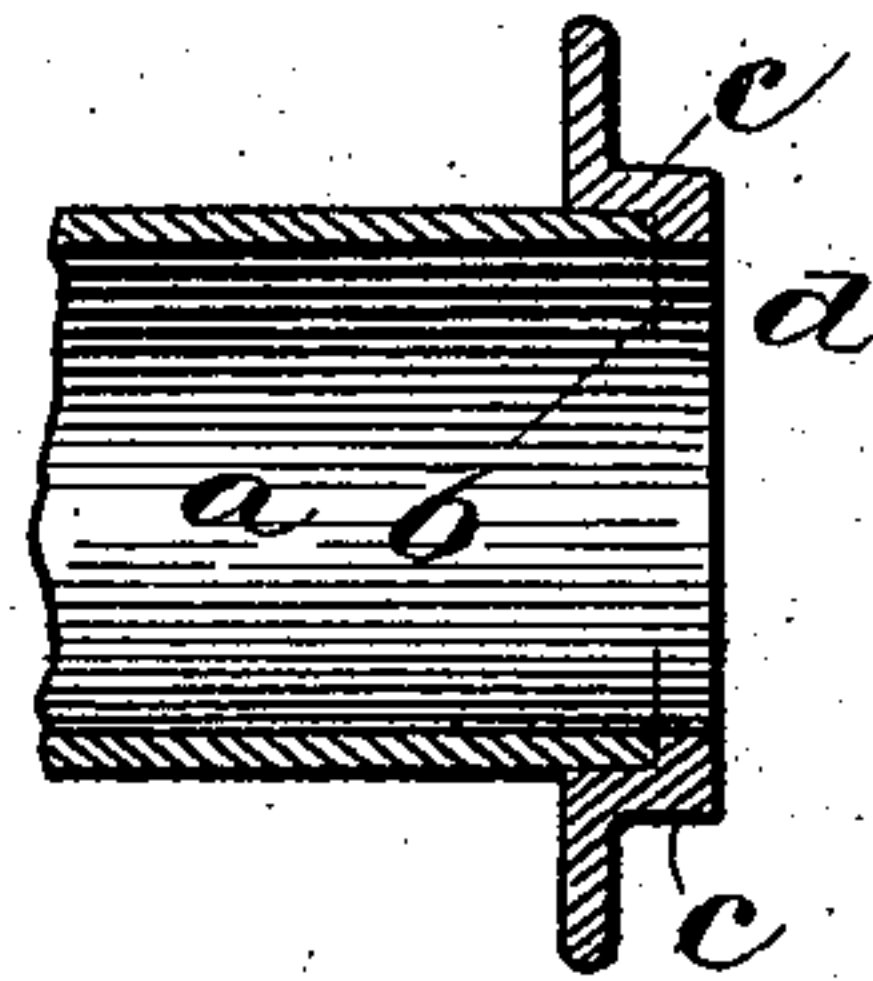


Fig. 3.

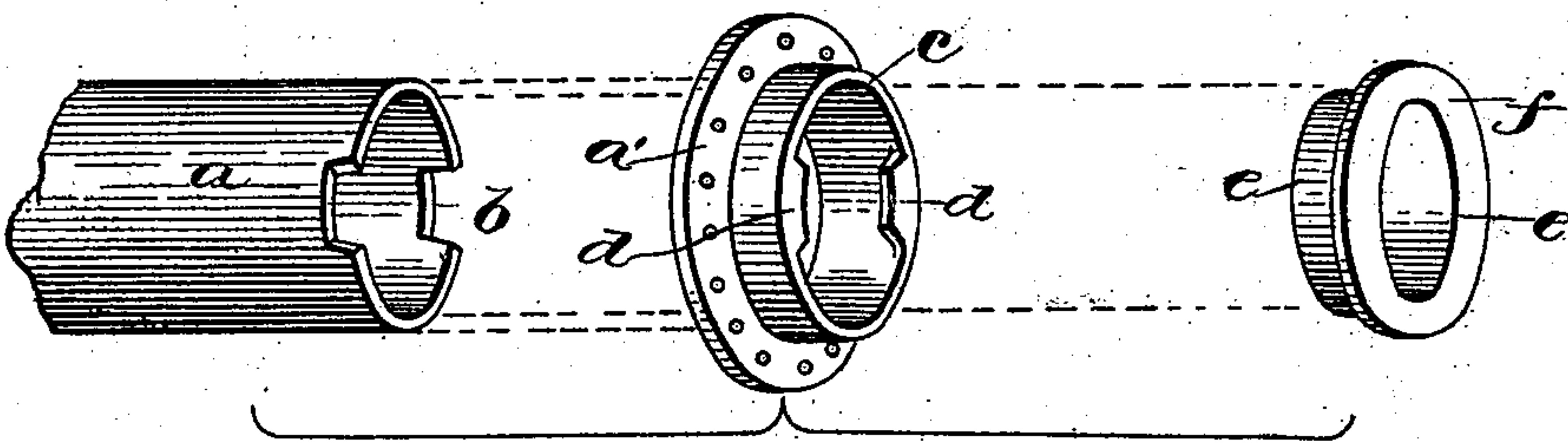
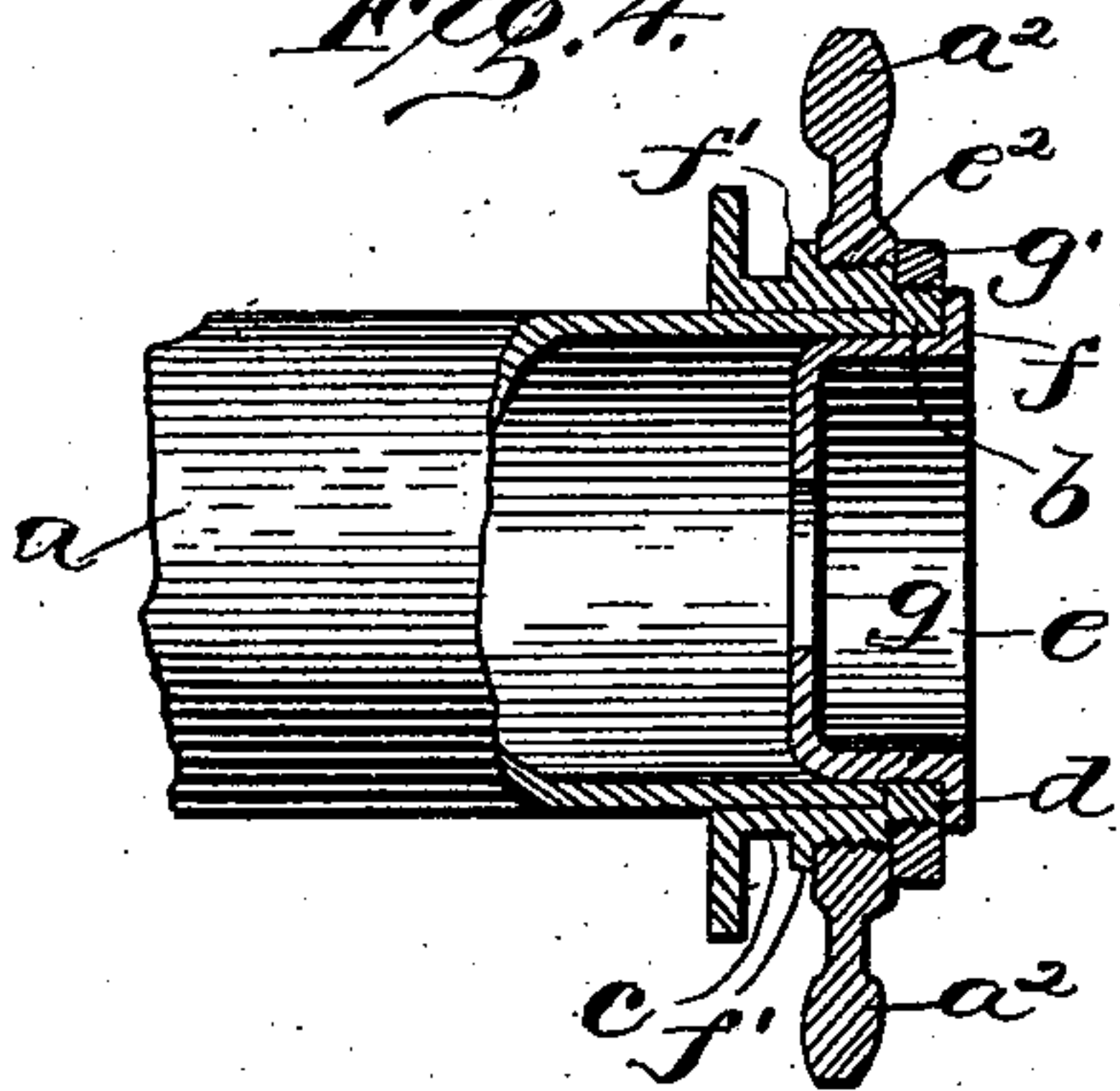


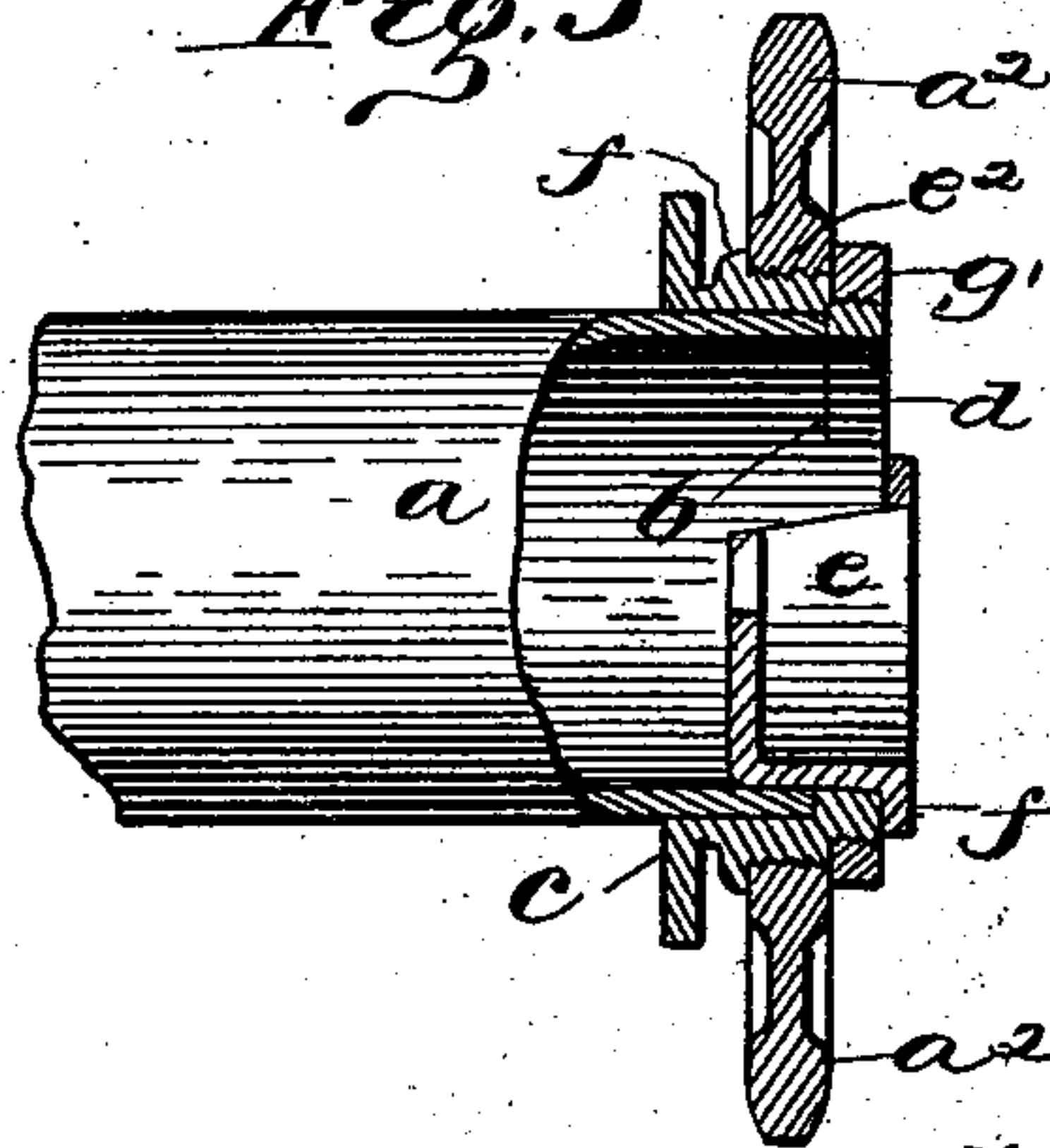
Fig. 4.



Witnesses:

J. M. Fowler Jr.
C. J. Stockman

Fig. 5.



Inventor:

Charles E. Tomlinson
By E. Laess
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UNITED STATES PATENT OFFICE.

CHARLES E. TOMLINSON, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF TO EMIL LAASS, OF SAME PLACE.

WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 554,464, dated February 11, 1896.

Application filed July 29, 1895. Serial No. 557,423. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. TOMLINSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Wheel-Hubs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to a new and novel construction of wheel-hubs for bicycles and analogous vehicles, and it has special reference to the class of bicycle-hubs known as "tubular" hubs.

The object of this invention is to produce a hub which shall be of very light weight and simple in its construction, and at the same time will be durable and cheap to manufacture; and to that end the invention consists of a wheel-hub having its body formed of a section of a metal tube, a collar embracing each end of said tube, each formed with a flange provided with perforations to receive the ends of the spokes of the wheel, and cups inserted in the ends of said tube and provided with flanges on their outer ends, by which they bear against the ends of the tube and collar, all of said parts being positively interlocked together by a system of notches and lugs; and the invention consists in the novel details of the construction, as hereinafter more fully described and pointed out in the claims.

In the annexed drawings, Figure 1 is a side view of my improved hub, shown partly in section to better illustrate its construction. Fig. 2 is a longitudinal section of an end portion of said hub with the flanged cup removed. Fig. 3 is a perspective view of the component parts of the hub, all shown detached. Fig. 4 is a view of the end portion of the form of hub shown in Figs. 1 and 3 in section and showing a manner of securing the sprocket-wheel thereto. Fig. 5 is a view similar to Fig. 4, with the bearing-cup partly broken away to better illustrate its construction.

In describing my invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

In the drawings, *a* represents a section of a metal tube which forms the body of the hub, the ends of which are formed with a series of

radial notches or recesses *b b*. On said ends are collars *c c* which embrace the same and formed on their outer ends with laterally-projecting radial lugs *d d*, which enter the aforesaid notches to lock said collars on the tube to prevent the same from shifting thereon. The length and width of the said lugs correspond to the depth and length of the recesses or notches, and the thickness thereof is the same as the gage of the tube in order to bring the collar flush with the tube on its inner periphery and also on the end. In the ends of said tube are inserted the bearing-cups *e e*, each formed with a flange *f* on its outer end, by which it bears against the outer end of the tube and collar *c*. Said cups are each formed with an opening *g* for the reception of the shaft *h*, provided with the usual adjustable cone *i*, and balls *j j* between said cone and cup form a bearing of well-known construction. On the inner end of each collar *c* is formed a flange *a'* provided with a series of perforations or holes *b'* for the reception of the ends of the spokes, which may be of any well-known form.

Fig. 4 of the drawings shows the manner of attaching the sprocket-wheel *a²* to the hub, which consists preferably in forming the collar *c* with a screw-threaded central portion *e²* to receive the sprocket-wheel and a small flange *f'* adjacent to said screw-threaded portion, against which said sprocket-wheel bears. The end portion of said collar is preferably of smaller diameter than the aforesaid screw-threaded portion and has a reverse thread on which is provided a jam-nut *g'* to retain the sprocket-wheel in its position, which collar may be of either of the designs shown in Figs. 3 and 5.

What I claim is—

1. In a metallic wheel-hub, the combination of a tube constituting the body of the hub and formed with notches or recesses in its ends, collars formed with flanges and embracing said ends and provided with laterally-projecting lugs entering said notches by which said parts are interlocked, and cups inserted in the ends of said tube and formed with flanges by which they bear against the ends of the tube and collars to prevent said cups from shifting inward as set forth.

2. In a wheel-hub, the combination of a
section of a tube constituting the body of the
hub and formed with notches or recesses in
its end, a flanged collar embracing said end
5 of the tube and formed with laterally-project-
ing lugs entering said notches to interlock
said parts, a bearing-cup inserted in the end
of the tube and formed with a flange bear-
ing against the end of said tube and collar
10 to prevent said cup from shifting inward,
said collar having its central portion screw-

threaded externally to receive the sprocket-
wheel, and its end portion provided with a
thread to receive a jam-nut to retain the
sprocket-wheel in its position as set forth 15
and shown.

In testimony whereof I have hereunto
signed my name this 27th day of July, 1895.

CHARLES E. TOMLINSON. [L. S.]

Witnesses:

JOHN J. LAASS,

WM. J. FURNESS.