

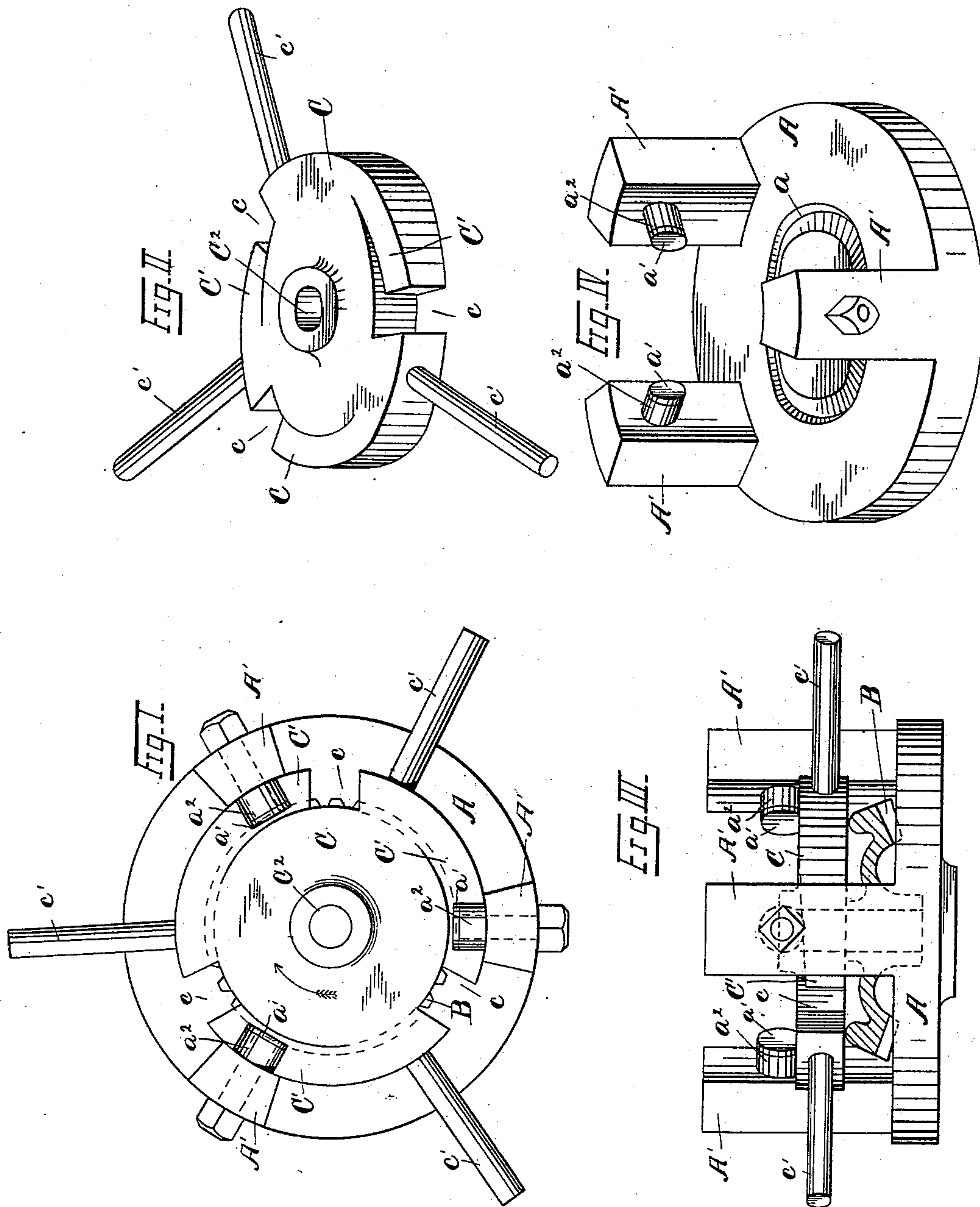
(No Model.)

H. N. KENNEDY.

LATHE CHUCK.

No. 379,473.

Patented Mar. 13, 1888.



Witnesses.
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UNITED STATES PATENT OFFICE

HERMAN N. KENNEDY, OF LAKE VIEW, ILLINOIS, ASSIGNOR OF ONE-HALF
TO JOHN SAYERS, OF SAME PLACE.

LATHE-CHUCK.

SPECIFICATION forming part of Letters Patent No. 379,473, dated March 13, 1888.

Application filed November 23, 1887. Serial No. 256,030. (No model.)

To all whom it may concern:

Be it known that I, HERMAN N. KENNEDY, a citizen of the United States, residing at Lake View, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Chucks, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

10 Figure I is a front elevation of a chuck embodying my invention; Fig. II, a detail perspective view of the cam-disk detached; Fig. III, an edge view of the chuck, showing the gear held therein in section; and Fig. IV, a
15 perspective view of the body of the chuck, the cam disk being removed.

Like letters refer to like parts in all the figures of the drawings.

My invention relates to chucks for holding
20 articles, and has for its object more particularly to provide a chuck for holding gears or other like articles during the operation of boring or drilling the same, which shall be simple in construction and quick and efficient in operation, so that the article to be operated upon
25 may be quickly and accurately placed in position, firmly held when in position, and readily removed.

To these ends my invention consists in certain novel features, which I will now proceed to describe, and will then particularly point out in the claims.

In the drawings, in which I have shown my invention practically carried out in one form,
35 A represents the face-plate or base of the chuck, which is adapted to be secured in any suitable manner in a drilling machine or lathe. This face-plate is provided with a channel, *a*, in its front face, which is so arranged
40 as to serve to accurately center the gear B to be operated upon. In the present instance I have shown a form of chuck which is adapted to receive a beveled gear in case the channel *a* is provided with inclined walls, as shown,
45 to provide a seat for the gear; but it will be understood, of course, that the channel will be so constructed as to adapt it to the form of the article to be operated upon. For instance, in the case of a spur-wheel the channel will be
50 enlarged sufficiently to form a recess within

which the spur-wheel will accurately fit. From the face-plate A there extend forward posts A', three of which are shown in the present instance, although it is obvious that the number may be varied, as desired. From each
55 post A' there extends inward a pin, *a'*, which is preferably provided with a roller, *a''*, although these rollers may be dispensed with.

C represents the cam-plate which serves to clamp the gear or other article to be operated
60 upon in position on the face-plate A. This cam-plate is of sufficient diameter to pass between the posts A', and is provided with a series of notches or slots, *c*, on its margin, corresponding in dimensions and number to the
65 pins *a'*. On the face of the disk C there is formed a series of cams, C', each consisting of an incline starting at one of the notches *c* and extending upward therefrom, adjacent to the margin of the disk C. The said disk is also
70 provided with projecting arms *c'*, or other suitable means, by which it may be rotated, and with a central aperture, C², for the passage of the drill.

The operation of the device is as follows:
75 The gear B to be operated upon is placed upon the face-plate A, and is accurately centered thereon by means of the channel *a*. It will be understood, of course, that a separate chuck of proper dimensions will be employed for
80 each size of gear to be operated upon. The gear having thus been placed in position and centered, the disk C is placed between the posts A', and, by causing its notches or slots *c* to coincide with the pins *a'*, is moved into a
85 position between said pins and the face-plate, so as to rest upon the gear. When in this position, it is only necessary to rotate the disk C in the direction indicated by the arrow in Fig. I, when the pins *a'*, riding upon the cam-in-
90 clines C', will force the disk against the gear, and will clamp this latter firmly in position against the face-plate of the disk. The gear may then be bored in the usual manner, and, when completed, may be readily removed by
95 rotating the disk C in the opposite direction until its notches or slots coincide with the pins. It will be seen that the chuck is extremely simple in its construction, and may be operated either to clamp or release the article
100

to be operated upon in an extremely quick and simple manner, while at the same time it serves to firmly and efficiently hold the same in position.

5 It is obvious that although I have described a chuck especially adapted for use in holding gears it may be employed in holding various other articles. It is also obvious that various modifications in the details of construction
10 may be made without departing from the principle of my invention; and I therefore do not wish to be understood as limiting myself strictly to the precise details hereinbefore described and shown in the drawings.

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

1. The combination, with the base or face-plate provided with posts having inwardly-
20 extending pins, of the clamping-disk provided with cam-inclines, upon which the said pins bear, substantially as and for the purposes specified.

2. The combination, with the face-plate pro-
25 vided with posts having inwardly-extending

pins, of the clamping-disk provided with corresponding slots or notches, and with cam-inclines extending from the said slots or notches along the face of the disk adjacent to the margin thereof, substantially as and for the pur- 30
poses specified.

3. The combination, with the face-plate provided with a suitable centering channel or recess, of the posts mounted thereon and provided with inwardly-projecting pins, and the
35 clamping-disk provided with corresponding slots or notches and cam-inclines, substantially as and for the purposes specified.

4. The combination, with the base or face-plate A, having centering channel or recess *a*,
40 of the posts A', having inwardly-projecting pins *a'*, with rollers *a''*, and the disk C, provided with corresponding notches or slots *c* and cam-inclines C', substantially as and for the purposes specified.

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