

No. 622,668.

Patented Apr. 11, 1899.

J. M. CARLSSON & E. A. O. GÖTHE.
BICYCLE DRIVING MECHANISM.

(Application filed Sept. 24, 1898.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 2.

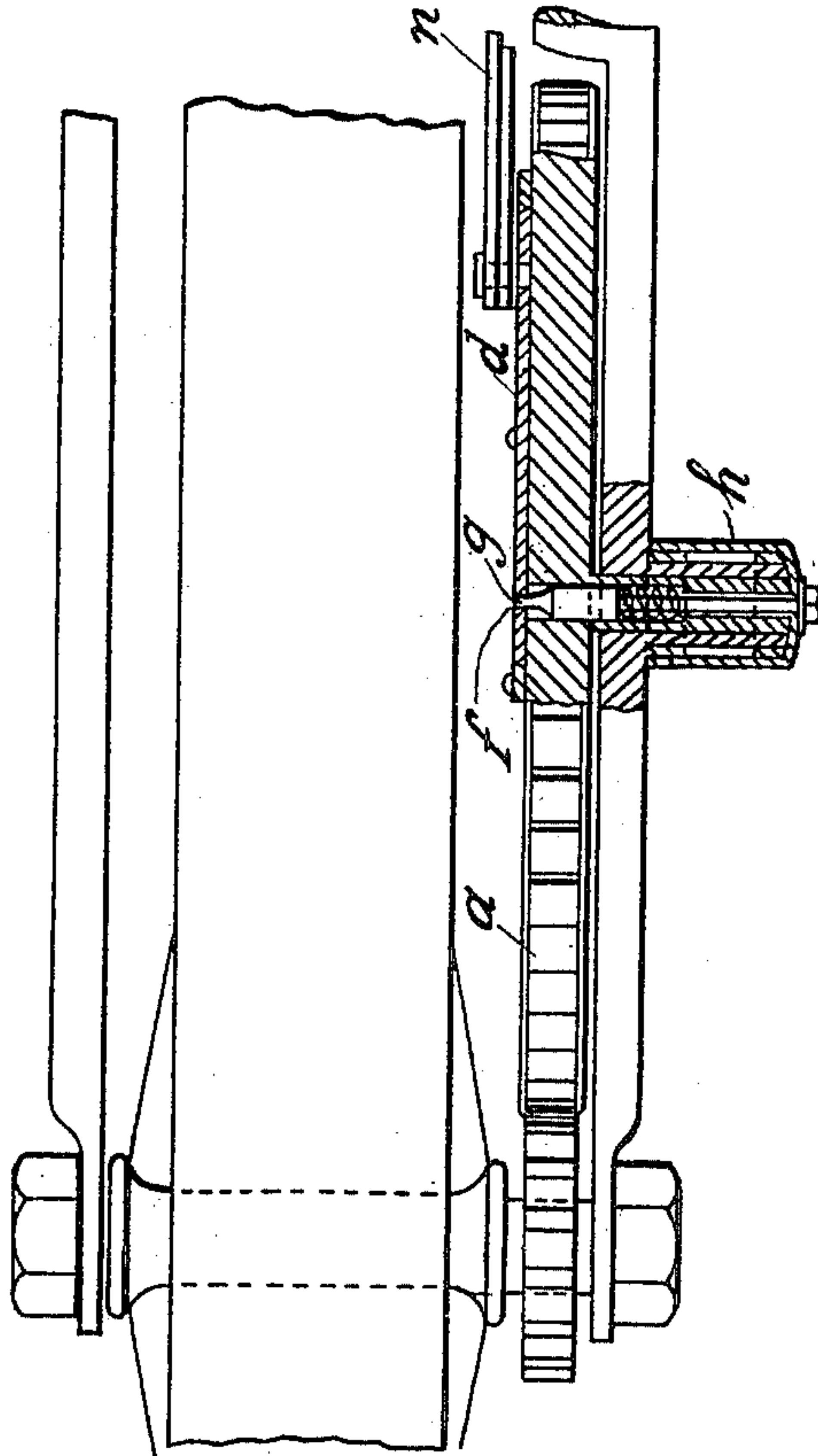
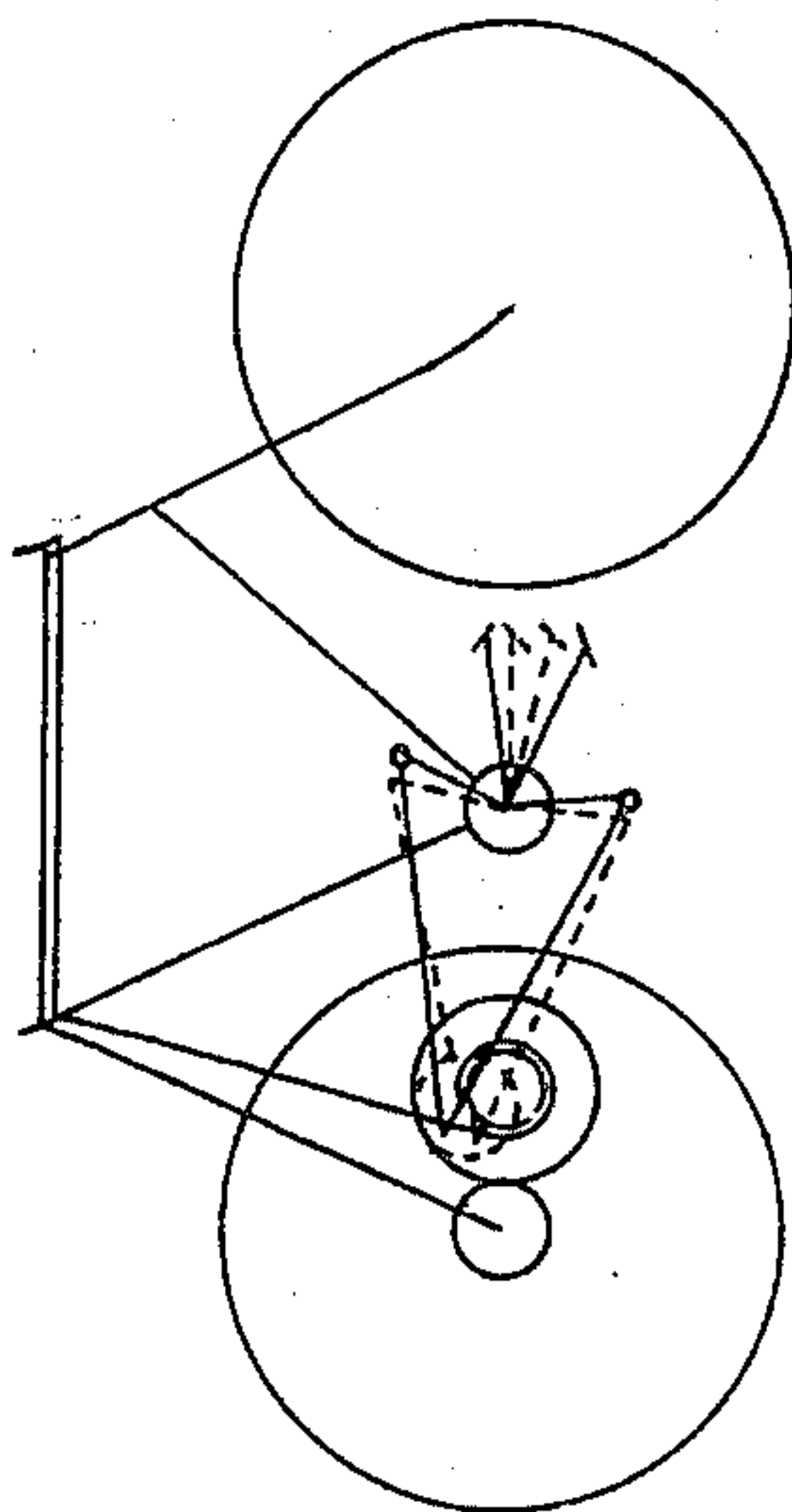


Fig. 1.



Witnesses,
J. L. Jensen.
Rev. J. Carl.

Inventors,
Johan Melcher Carlsson
and Emil A. O. Göthe,
by A. Blomson & Co
Attorneys.

No. 622,668.

Patented Apr. 11, 1899.

J. M. CARLSSON & E. A. O. GÖTHE.
BICYCLE DRIVING MECHANISM.

(Application filed Sept. 24, 1898.)

(No Model.)

3 Sheets—Sheet 2.

Fig. 4.

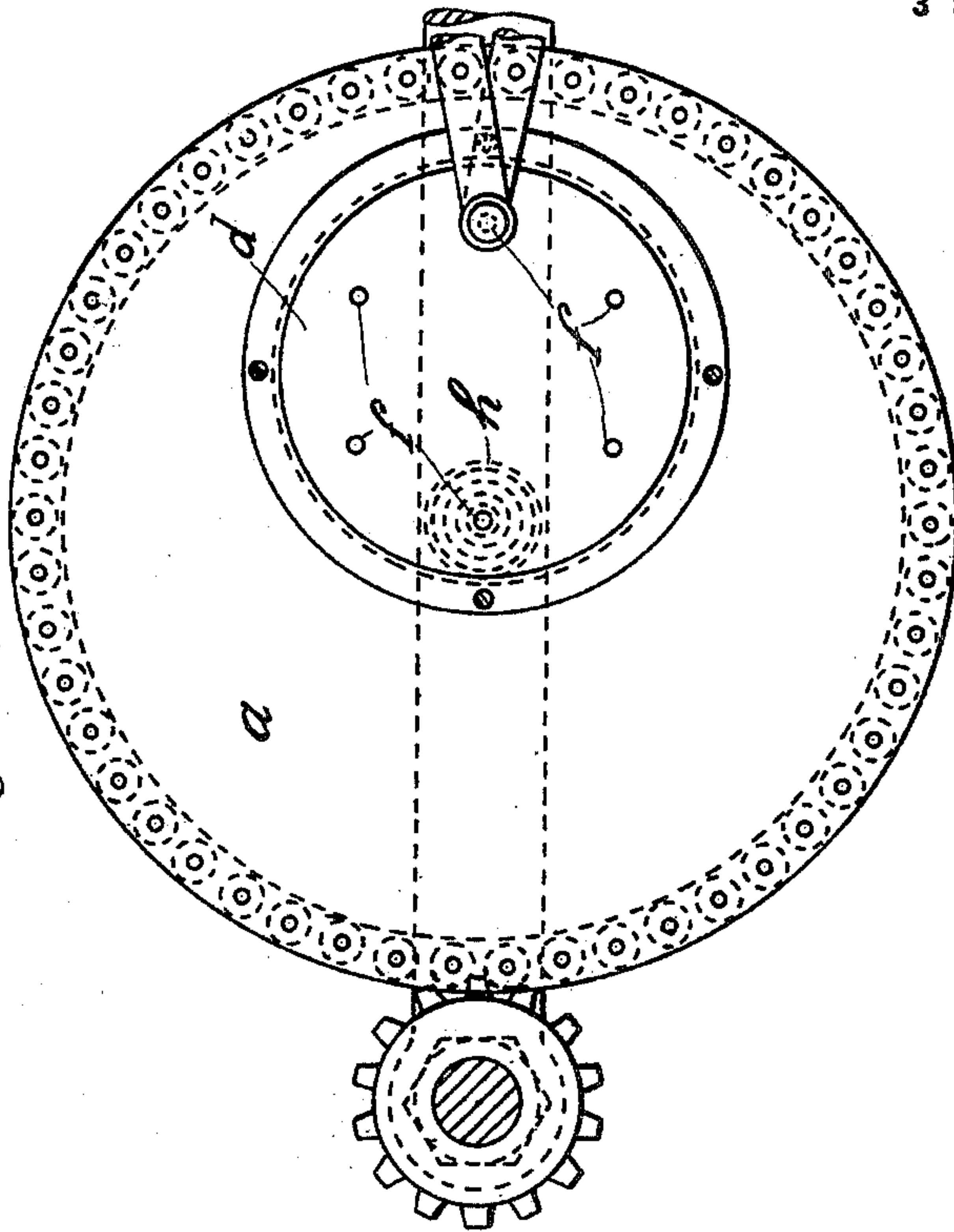
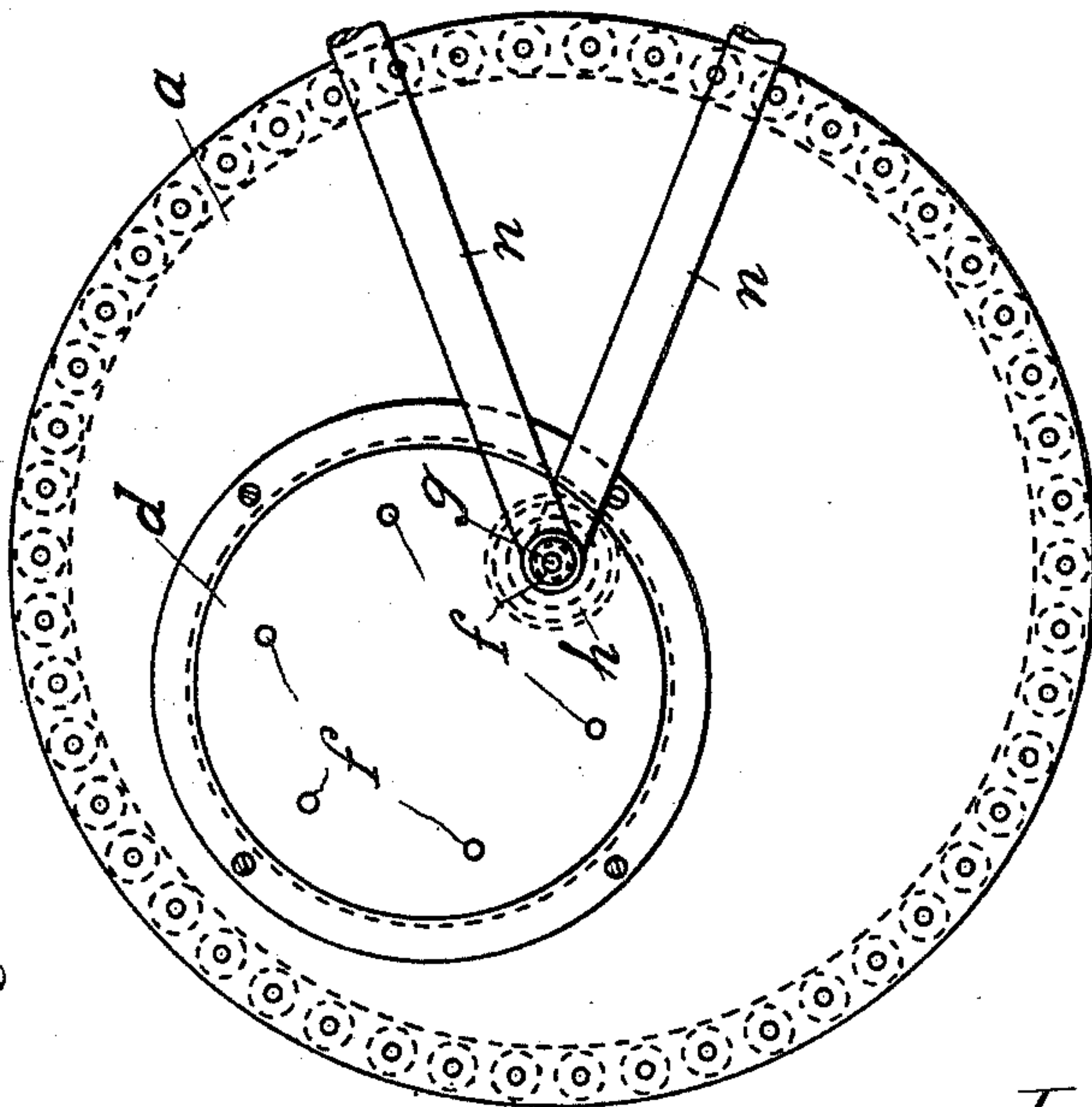


Fig. 3.



Witnesses:
J. L. Johnson
Benj. R. Cook

Inventors:
Johan Melcher Carlsson,
and Emil A. O. Göthe,
by A. B. Willson & Co.
Attorneys.

No. 622,668.

Patented Apr. 11, 1899.

J. M. CARLSSON & E. A. O. GÖTHE.

BICYCLE DRIVING MECHANISM.

(Application filed Sept. 24, 1898.)

(No Model.)

3 Sheets—Sheet 3.

Fig. 6.

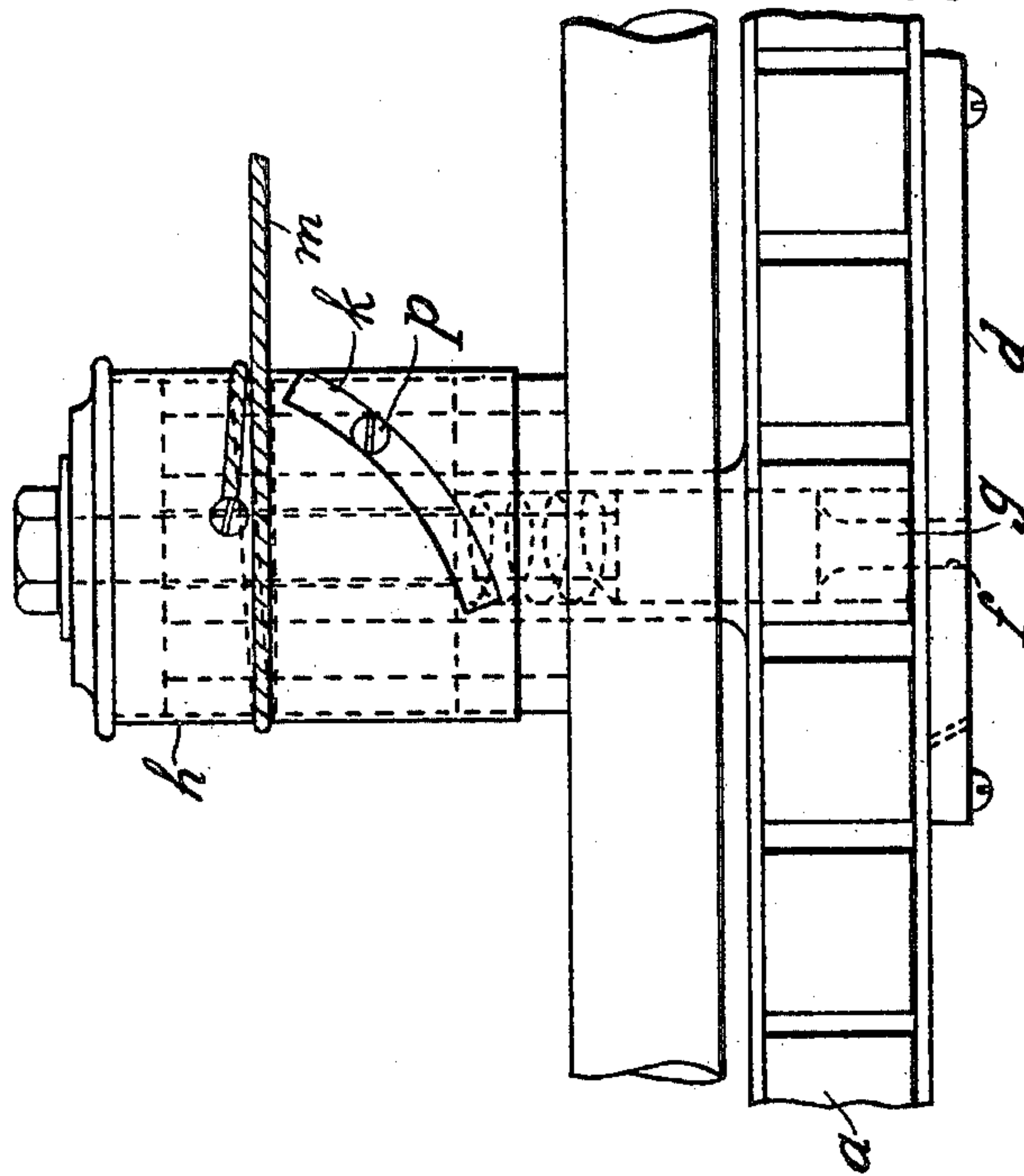
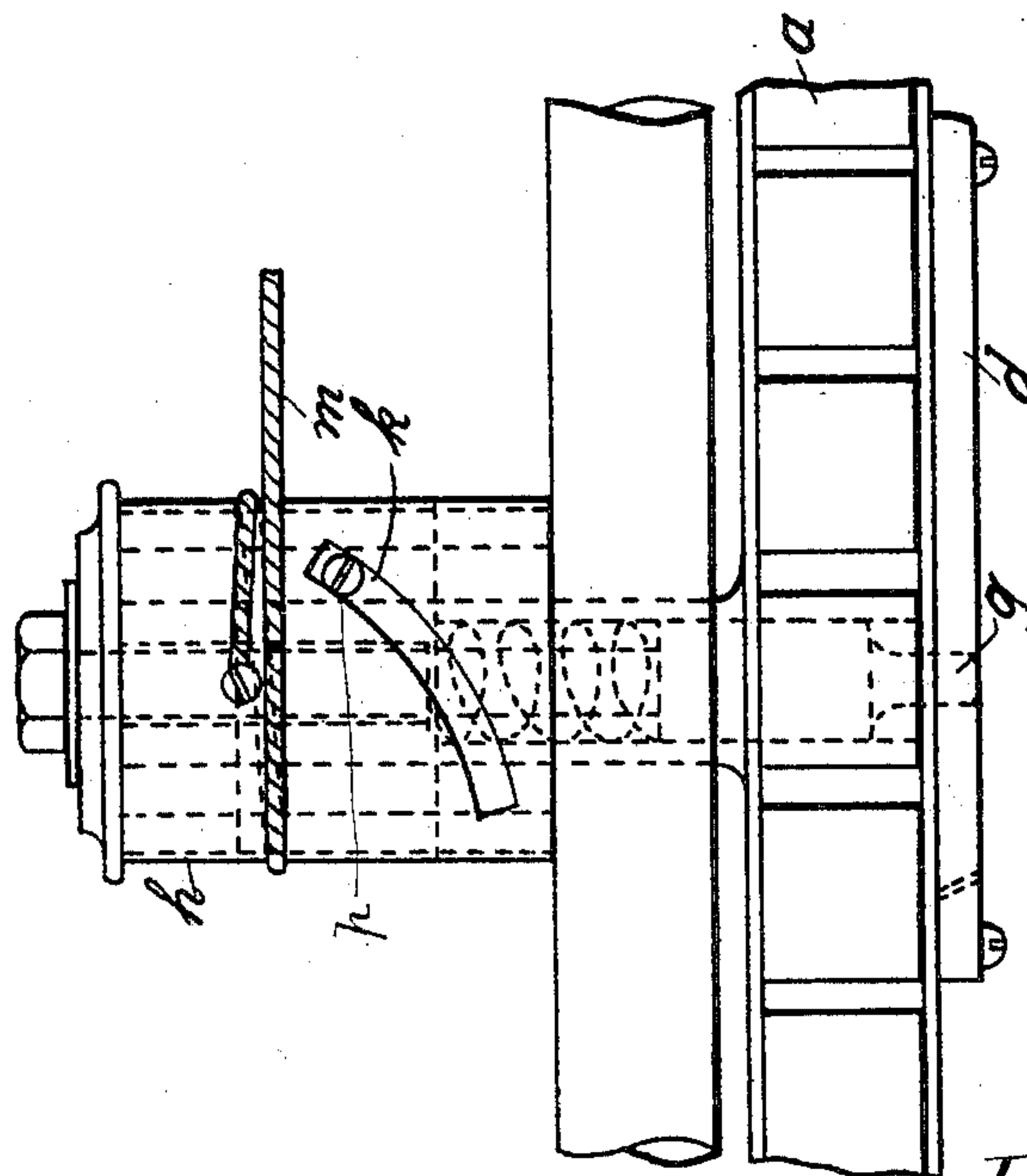


Fig. 5.



Witnesses;
J. L. Johnson
Benj. H. Conner

Inventors:
Johan Melcher Carlsson
and Emil A. O. Göthe,
by A. B. Olsson & Co
Attorneys.

UNITED STATES PATENT OFFICE.

JOHAN MELCHER CARLSSON AND EMIL ALBERT OLSON GÖTHE, OF
STOCKHOLM, SWEDEN.

BICYCLE DRIVING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 622,668, dated April 11, 1899.

Application filed September 24, 1898. Serial No. 691,823. (No model.)

To all whom it may concern:

Be it known that we, JOHAN MELCHER CARLSSON and EMIL ALBERT OLSON GÖTHE, mechanics, subjects of the King of Sweden and Norway, residing at Lilljansplan 5, Stockholm, Sweden, have invented new and useful Improvements in Bicycle Driving Mechanism, of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is an outline elevation of a velocipede embodying improvements of our invention. Fig. 2 is an enlarged detail plan view of the gear-wheel, pedal-lever, movable plate *d*, having holes *f*, bearing-socket *h*, and the pivot *g*. Fig. 3 is an enlarged detail view of the gear-wheel *a*, movable plate *d*, levers *n n*, bearing-socket *h*, and pivot *g*. Fig. 4 is a side elevation of the gear-wheel *a*, movable plate *d*, pivot *f*, and levers. Fig. 5 is an enlarged detail view showing bearing-socket *h*, having groove *k* and cord *m*, gear-wheel *a*, and plate *d*. Fig. 6 is a similar view of the last-mentioned parts, the bearing-socket *h* having been slightly turned from the position shown in Fig. 5.

This invention relates to improvements in velocipedes for the purpose to make the stroke of the pedal longer or shorter.

On the gear-wheel *a*, which is driven by the levers of the pedals, is placed in a ring a movable plate *d*, supplied with a number of holes *f*, firmly fixed along a periphery going through the central point of the gear-wheel *a*. The plate *d* is kept in position by a movable pivot or pin *g*, placed in the center of the gear-wheel *a* and engaging into the holes *f*. This pivot or pin can be placed out of the holes *f* by turning a bearing-socket *h*, being in communication with the pivot *g* and placed outside of the gear-wheel *a*. In the wall of the bearing-socket is a groove *k*. By turning the bearing-socket *h* a smaller pin *p* runs into the

groove *k*. This pin is fixed to the bearing. The rotation is produced by pulling a string *m*, wound around the bearing-socket *h* and firmly fixed to the same. The levers of the pedals are fastened to the plate *d*.

Fig. 4 shows a position of the plate *d* when the fastening-point of the levers *n* is in its longest distance from the central point of the gear-wheel *a*.

If the plate *d* is made free from the pin *g*, the same will rotate when moving up and down and the pin *g* can run in any of the holes *f*.

Fig. 4 shows the position of the plate *d* when the fastening-point of the levers *n* coincides with the central point of the gear-wheel *a*.

Having now described our invention, what we claim, and desire to secure by Letters Patent, is—

In a velocipede, the combination of the rear wheel *a*, a circular plate provided with holes *f* near its periphery and revolubly mounted on the face of said gear-wheel, a bearing-socket *h* revolubly mounted on a bearing on the frame and provided with a spiral groove *k*, a securing-pin *p* passed through the groove into the bearing, a holding-pin *g* attached to the bearing-socket, and passing through the center of the gear-wheel, and adapted to be fitted into either one of the holes *f*, connecting-rods pivoted to said plate *d*, and means for turning the bearing-socket, the position of said holding-pin, with relation to the plate, regulating the distance between the pivoted point of the connecting-rods, and the center of the gear-wheel, as set forth.

In witness whereof we have hereunto set our hands in presence of two witnesses.

JOHAN MELCHER CARLSSON.
EMIL ALBERT OLSON GÖTHE.

Witnesses:

ERNST NORDLINDK,
H. HÅKANSON.