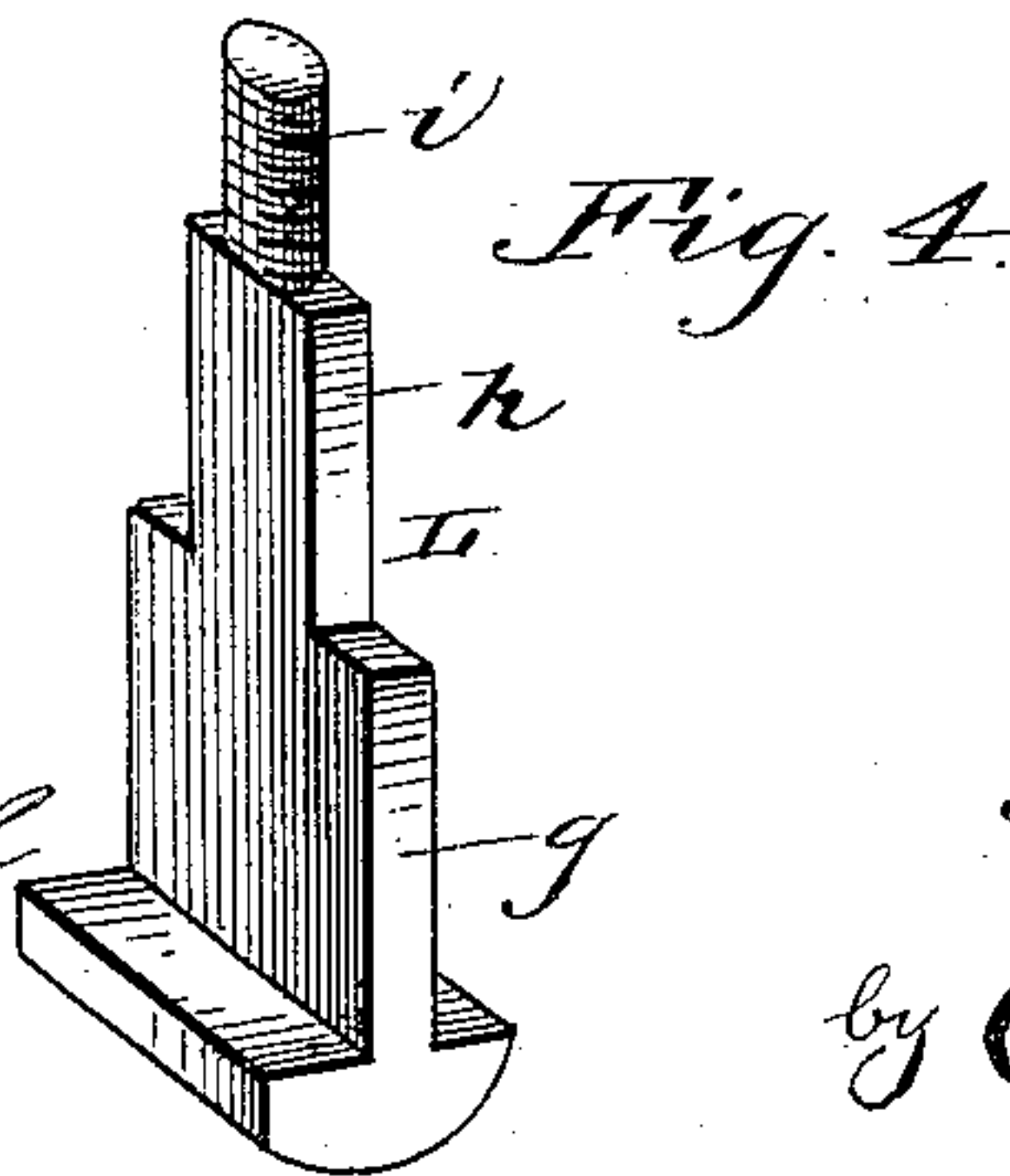
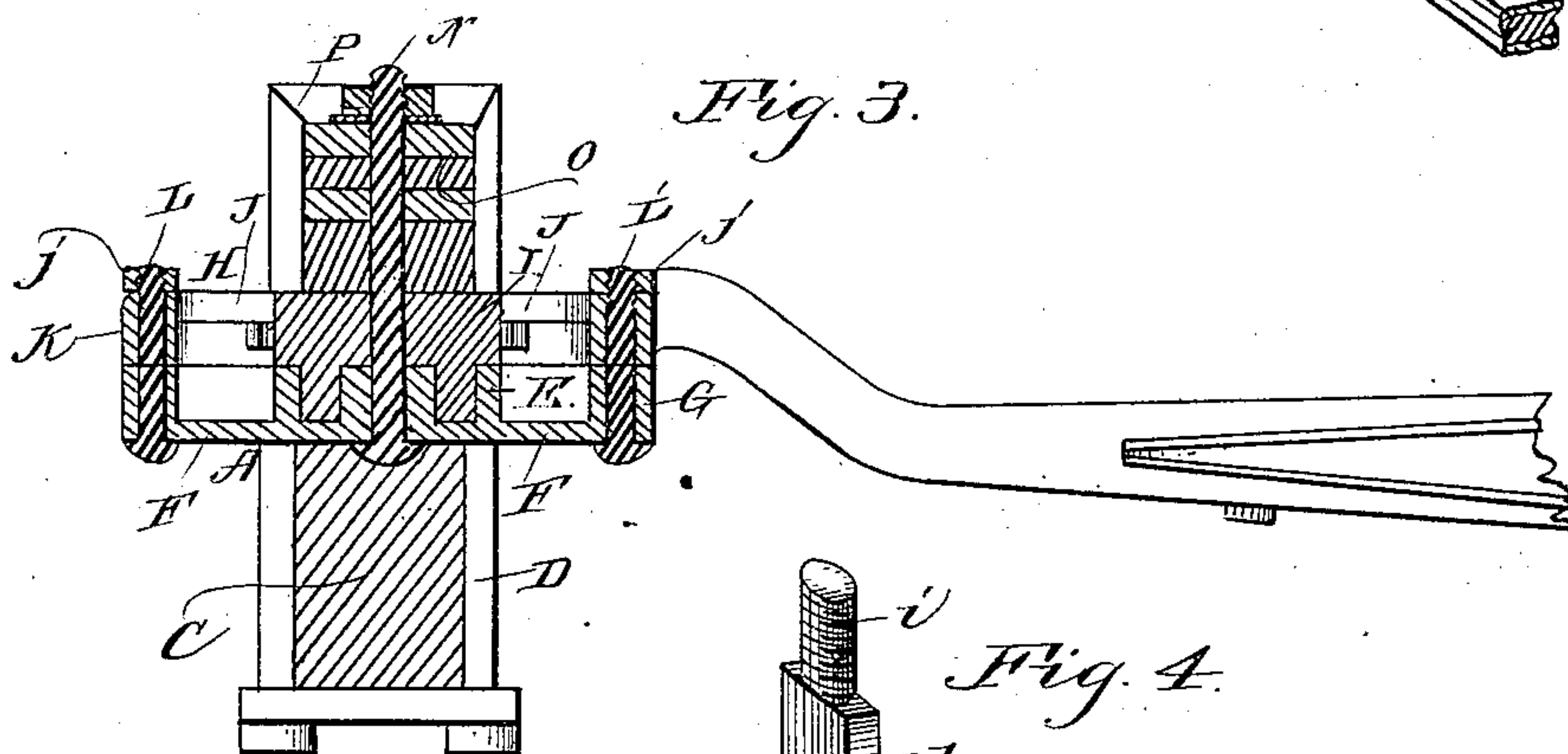
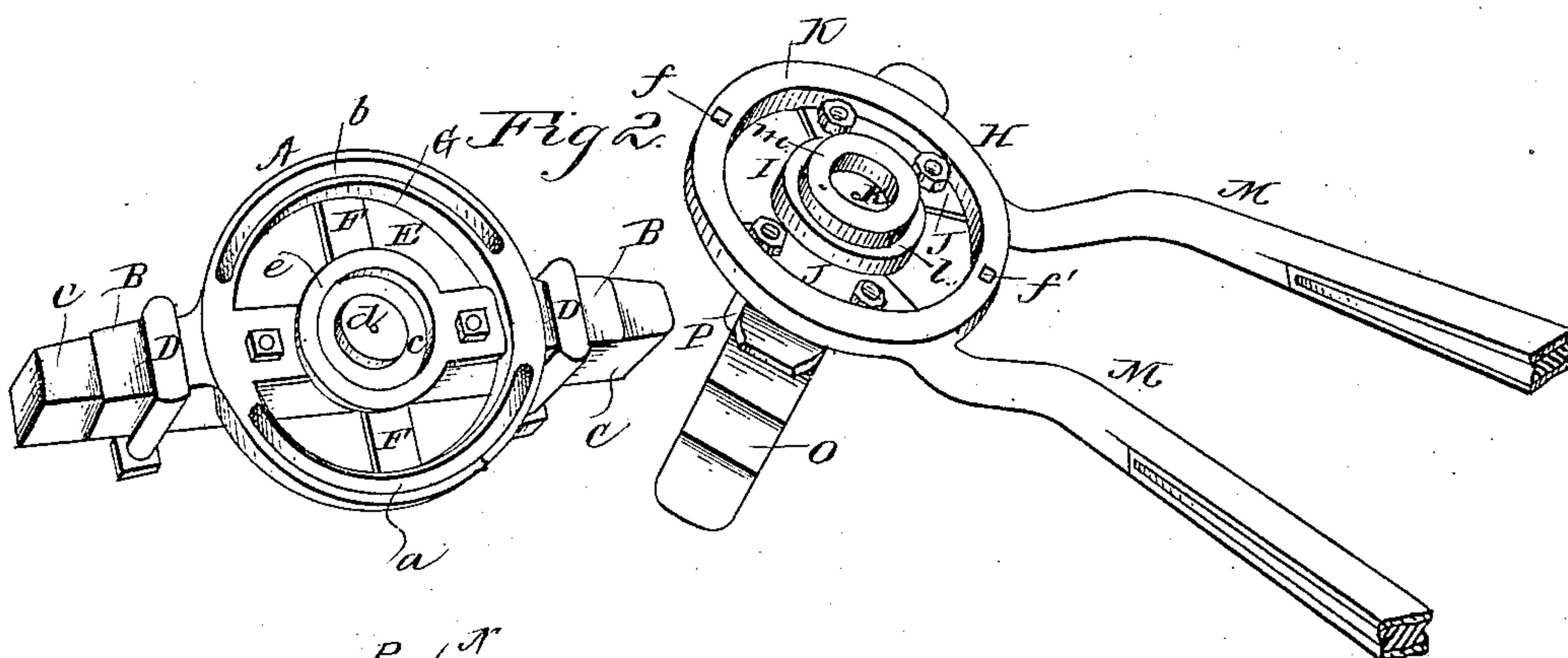
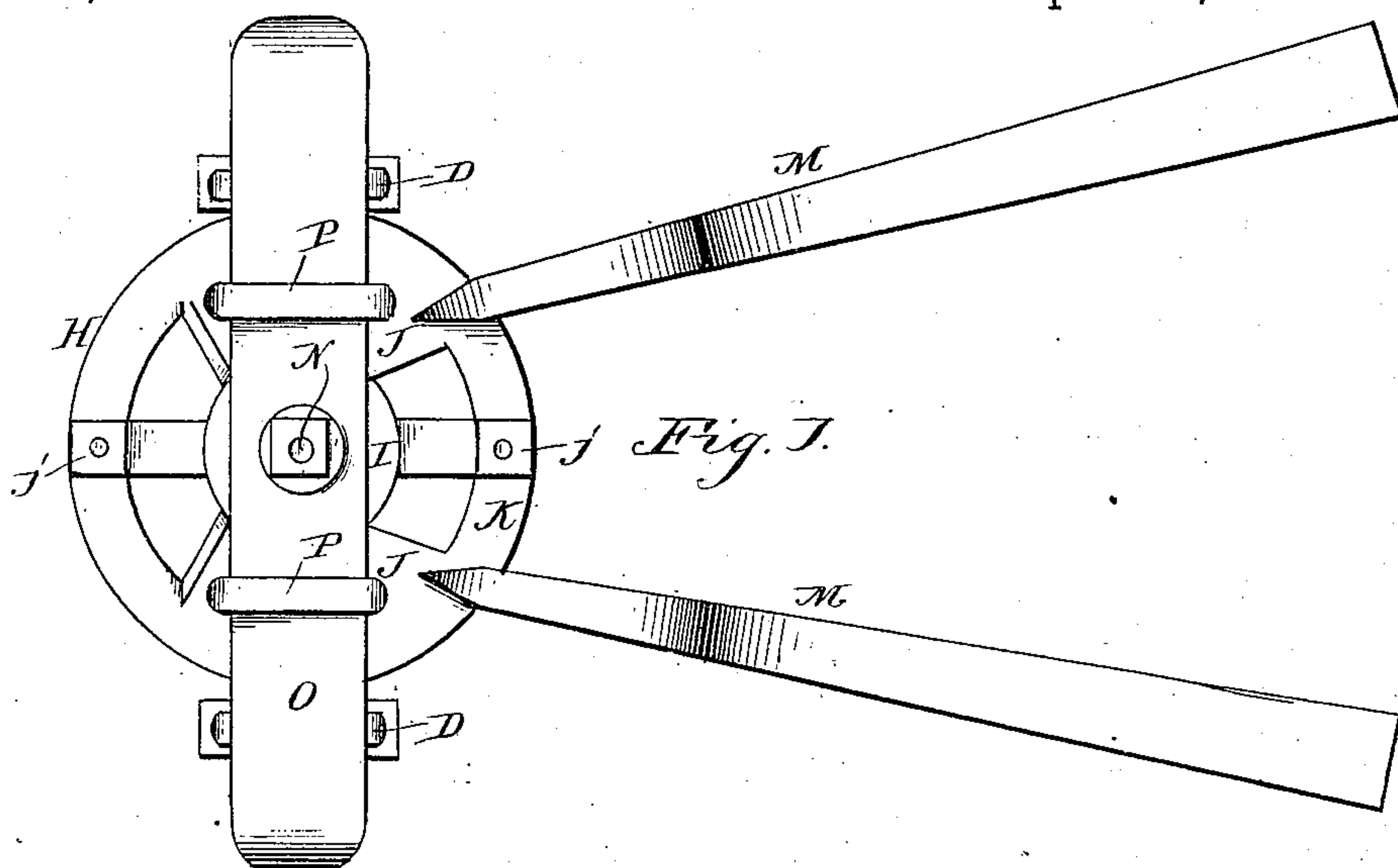


(No Model.)

J. W. LEETE.  
FIFTH WHEEL.

No. 316,276.

Patented Apr. 21, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN WILLIAM LEETE, OF SOUTH MERIDEN, CONNECTICUT.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 316,276, dated April 21, 1885.

Application filed December 16, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. LEETE, a citizen of the United States, residing at South Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Fifth-Wheels, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to fifth-wheels; and it has for its object to provide a device of this character which will be simple, strong, and light in construction, which is applicable to all classes of vehicles, is efficient in operation, will not work out of order, and is readily and conveniently applied in position.

With these and other objects in view the said invention consists in certain details of construction and combination of parts, as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved fifth-wheel in position for operation, with the proximate parts attached thereto. Fig. 2 is a perspective view of the parts detached. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail view of one of the bolts connecting the two plates.

Like letters are used to indicate corresponding parts in the several figures.

Referring to the drawings, A designates the lower circle or plate of my improved fifth-wheel, having lateral extensions B B secured to the axle C by clips D D. The said plate A consists of the central hub or spider, E, connected by radial arms F with the outer ring, G, the latter being slotted or channeled both at the front and rear, as shown at *ab*, said slots extending nearly around the ring. The hub E is provided on its upper face with an annular recess or depression, *c*, forming in the center thereof a circular projection, *d*, an annular flange or wall, *e*, inclosing the said recess.

H designates the upper plate, consisting of the hub I, connected by segmental wings J with the outer ring, K, the latter being perforated at *ff'* for the passage of bolts L L'. (Shown in detail, Fig. 4.) The said bolts have a square head, the outer face of which is rounded, and a body comprising the oblong main portion *g*, the diminished tapering portion *h*, and a threaded projection, *i*, to receive the nut *j*. When in position, the oblong por-

tion fits in the slots *ab* of the lower plate, A. The tapering portion is arranged in the correspondingly-tapered square perforations *ff'* of the upper plate, and the threaded projection extends above the latter and receives the nut.

The hub I of the upper plate has a circular depression, *k*, in the lower face thereof, and an annular recess, *l*, around its circumference at the under side, an annular projection or wall, *m*, being arranged between the central depression and the recess.

The metallic braces M M for the perch or reach are formed integral with the top plate of the fifth-wheel, and connected with the perch in the usual manner. In the drawings I have shown what is termed a "double perch;" but it will be apparent that I may employ the ordinary construction of perch, and use only one set of braces M.

The elliptic spring O is attached in position by the clips P P, which encircle the same, and have their arms or shanks passing down through the wings J J, and secured by nuts at the lower ends. A bolt, N, also passes through the spring O and hubs I E, and is secured to the under side of the latter hub, E, so as to hold the two plates or circles of the fifth-wheel together. Bolts Q Q are also used to hold the lower plate, A, in position by passing through its arms F into and through the axle.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings. The lower plate is secured to the axle by the clips and bolts before mentioned. The spring is secured to the upper plate also by the clips. The upper plate is placed parallel with the lower plate, and attached thereto by the bolts L L', and the bolt N is secured by the nut above the spring.

It will be seen that in operation the bolts L L' travel through the slots or channels *ab*, formed in the lower plate, since said bolts are rigid with the upper plate. The peculiar construction of the bolt reduces friction and wear, and enables the parts to run with greater ease, the fifth-wheel readily responding to the action of the axle or perch.

The attachment of the parts is convenient, so that it requires but a short time to make the necessary connections.

The fifth-wheel is light, may be made in va-

rious forms, shapes, and sizes, and is capable of resisting considerable strain without getting out of order. It is applicable to all classes of vehicles without any change, dispenses with  
5 the use of the king-bolt, and simplifies the construction in every respect. It is efficient in operation, and will prove of great utility for the purposes intended.

Having described my invention, I claim—

- 10 1. The herein-described fifth-wheel, comprising an upper and lower plate working face to face against each other, the lower plate being secured to the axle, and having slots *a b* at the front and rear, and bolts consisting of  
15 an oblong portion fitting in the slots and a

tapering portion arranged in correspondingly-tapered perforations of the upper plate, and nuts for securing the bolts in the latter, as set forth.

2. The herein-described bolt, comprising the 20 head and the body having the oblong main portion, diminished tapering portion, and threaded projection, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 25 presence of two witnesses.

JOHN WILLIAM LEETE.

Witnesses:

A. L. STEVENS,

JAMES HENRY CORRIN.