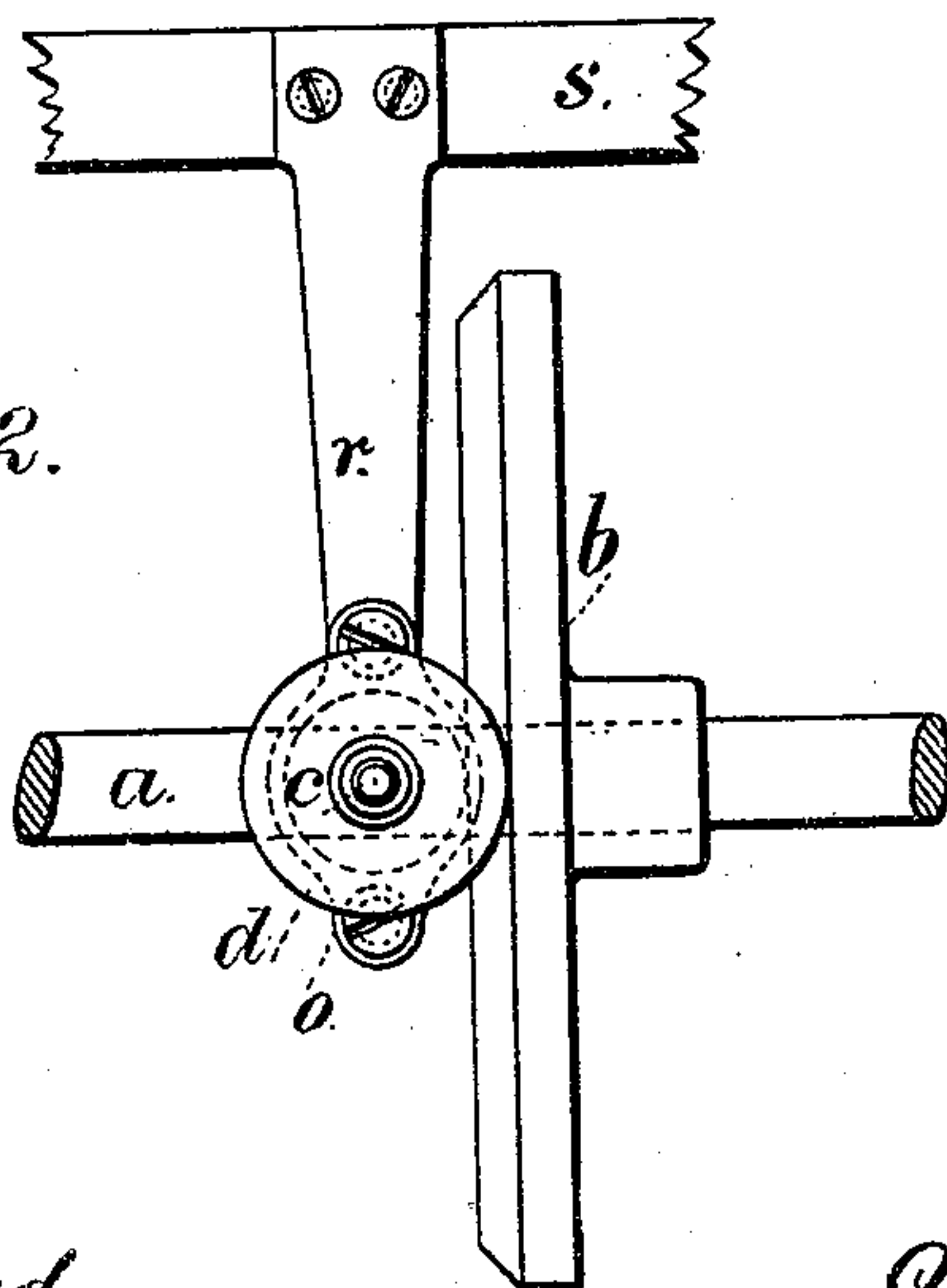
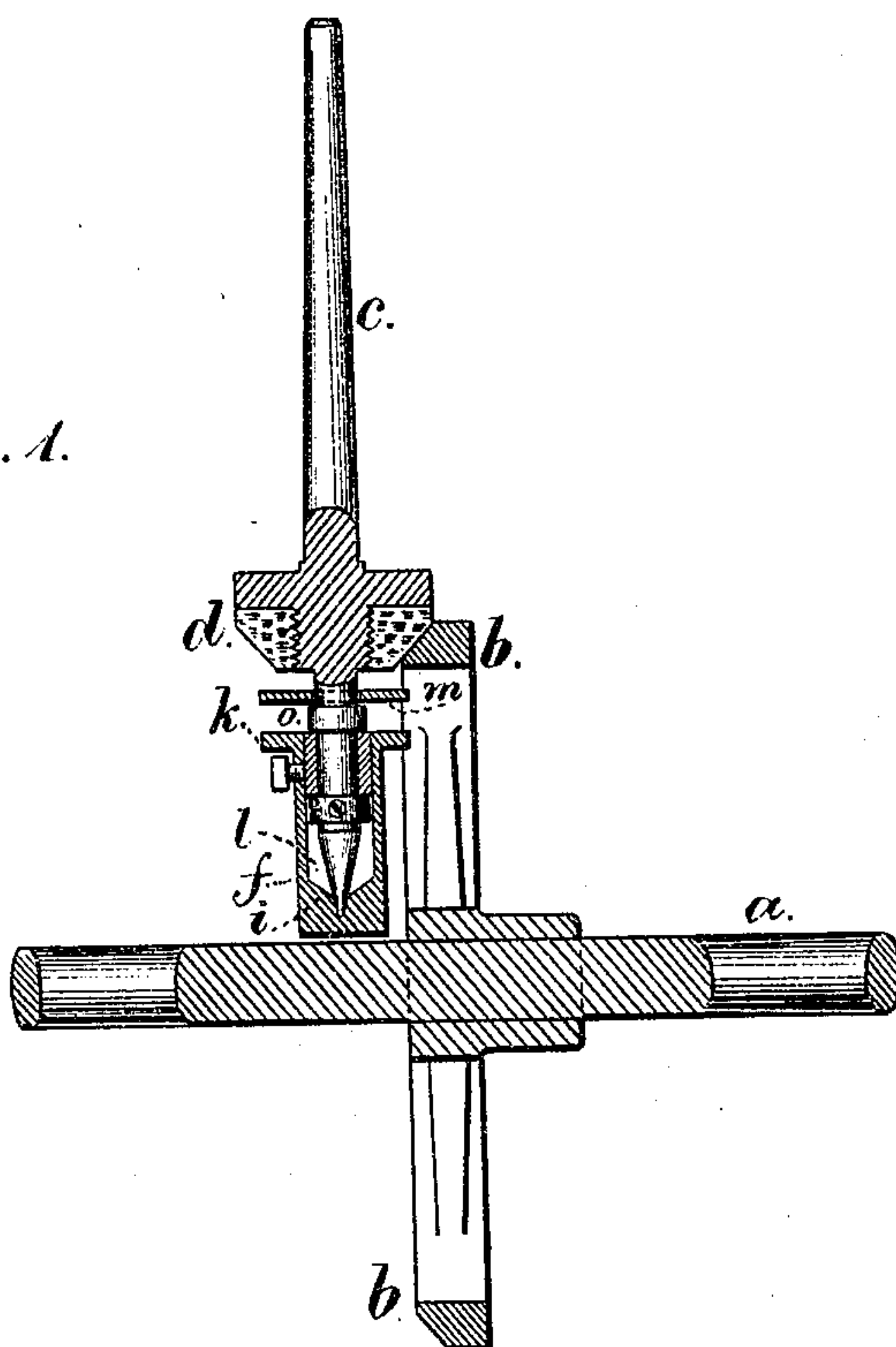


T. WRIGLEY.

MEANS FOR DRIVING THE SPINDLES OF SPINNING-MACHINES.

No. 179,496..

Patented July 4, 1876.



Witnesses

Chas H. Smith
Harold Threll

Inventor

Thomas Wrigley.
per Lemuel M. Perrell
Att'y.

UNITED STATES PATENT OFFICE.

THOMAS WRIGLEY, OF PATERSON, NEW JERSEY.

IMPROVEMENT IN MEANS FOR DRIVING THE SPINDLES OF SPINNING-MACHINES.

Specification forming part of Letters Patent No. **179,496**, dated July 4, 1876; application filed February 28, 1876.

To all whom it may concern :

Be it known that I, THOMAS WRIGLEY, of Paterson, in the county of Passaic and State of New Jersey, have invented an Improvement in Spinning-Machines, of which the following is a specification:

This improvement relates to the means for driving the spindle, and to the socket for holding the lower end of said spindle.

I make use of a friction-wheel with a beveled face acting against the beveled surface of leather upon the spindle, to rotate the same, and the lower end of the spindle is received into a tubular bearing, having at the lower end a step and at the upper part a bearing for the spindle, so that a receptacle is formed between the two bearings for oil or similar material, and the bearing for the spindle is at the end of a yielding or spring arm that insures a proper contact between the friction-wheel and pinion.

In the drawing, Figure 1 is a vertical section of the spindle and its wheel; and Fig. 2 is a plan of the same.

The driving-shaft *a* is mounted in suitable bearings, and revolved by suitable power. It extends the entire length of the range of spindles, and is provided with a wheel, *b*, adjacent to each spindle, and the surface of such wheel *b* is beveled. The spindle *c* is provided with a conical leather pinion, *d*, that runs by contact with the surface of the wheel *b*, and the upper part of the spindle is adapted to receive the bobbin or spool, as usual. The lower part of

the spindle passes into the tubular socket *f*, in which is the bottom step or bearing *i*, and upper bearing or box *k* for sustaining the spindle, and between these is the oil-chamber *l*. The spindle is kept from being lifted, in pulling off the bobbin, by a collar, *o*, that may be below the forked plate *m*, or it may be within the oil-chamber, provided the bearing *k* is movable and held in the socket *f* by a set-screw.

By this construction the belts heretofore usually employed are dispensed with, and the parts are rendered very durable and efficient.

The tubular sockets *f* are each connected with the outer end of a yielding arm, *r*, that is attached at its opposite end to the horizontal bar *s*, so as to cause the surfaces of the friction-wheel and pinion to remain in contact with the friction necessary to insure the rotation of the spindle, and the tubular socket *f* may be adjusted vertically in the arm *r*, to insure the proper frictional contact.

I claim as my invention—

The yielding arm *r*, tubular socket *f*, bearings *i* *k*, and spindle *c* in combination with the beveled friction-wheel *b* and beveled pinion *d*, substantially as set forth.

Signed by me this 24th day of February, A. D. 1876.

THOMAS WRIGLEY.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.