

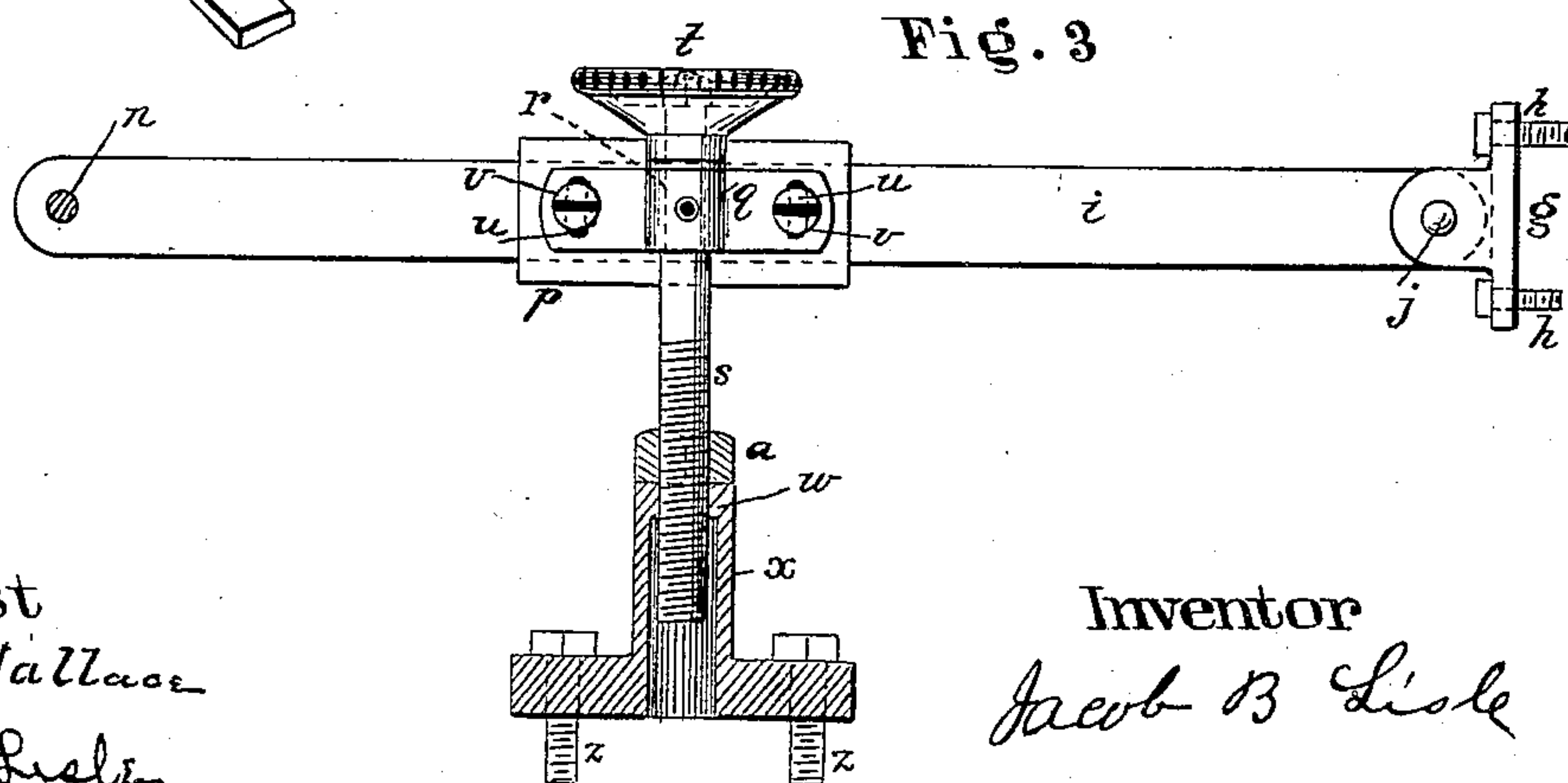
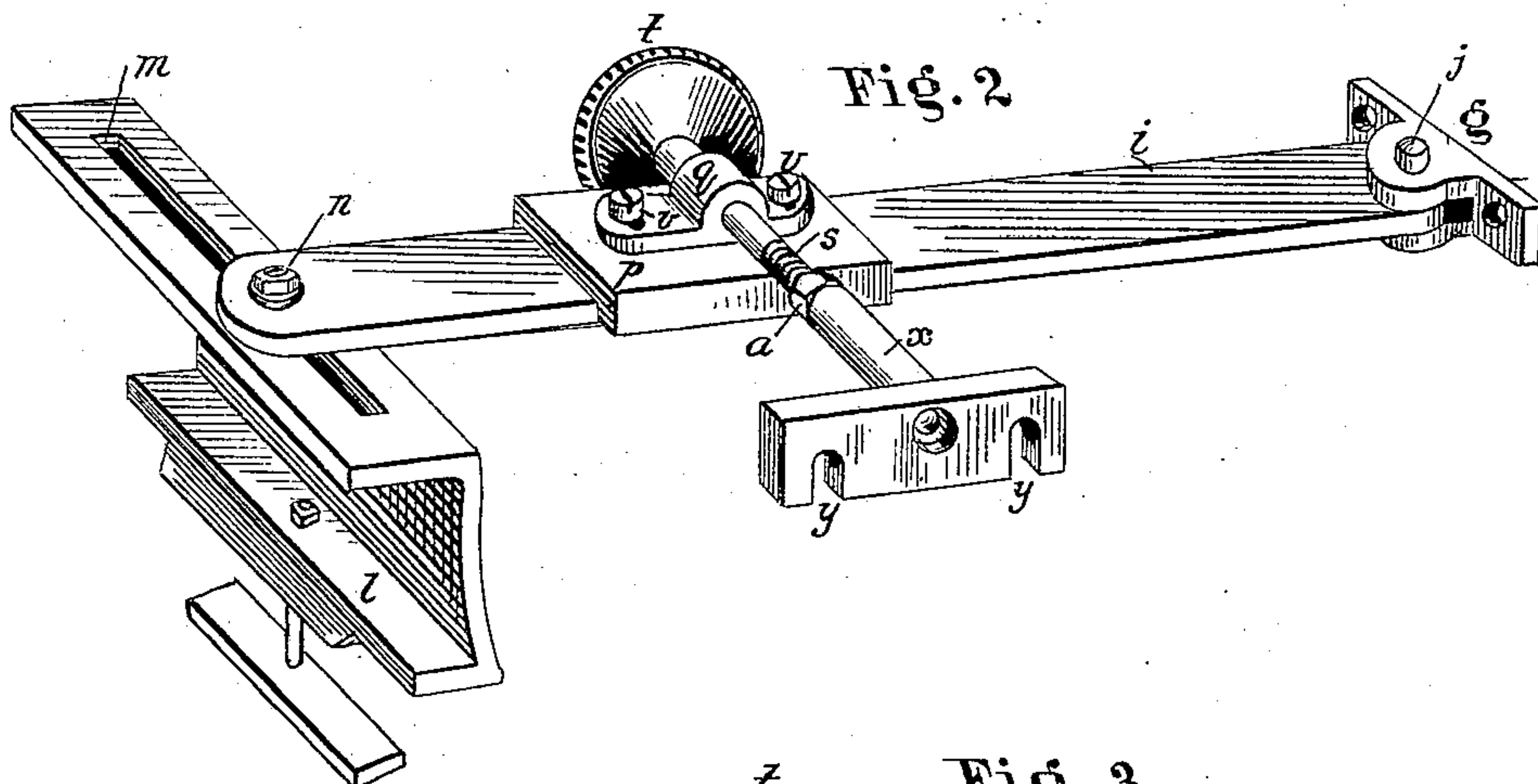
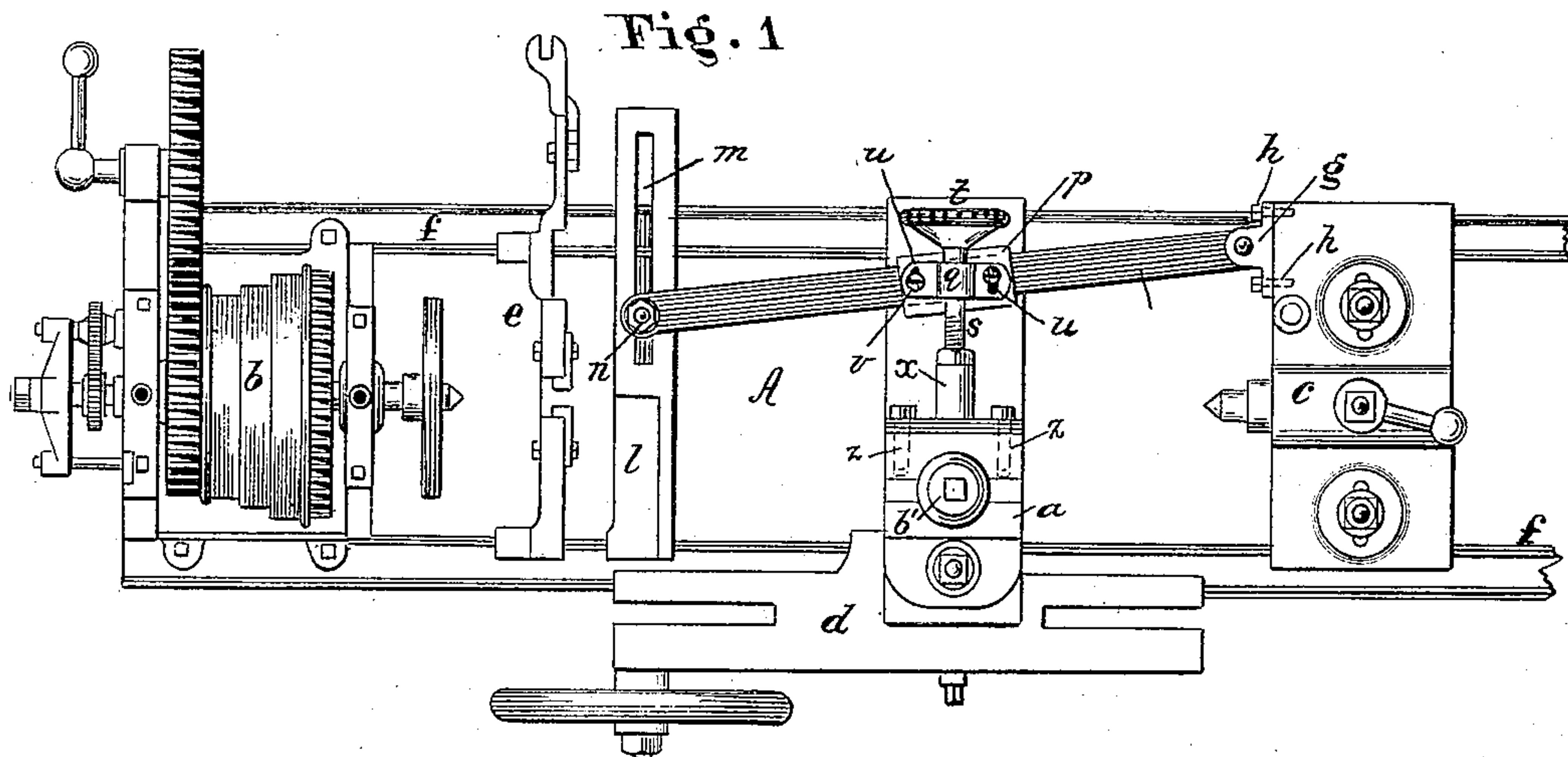
(No Model.)

J. B. LISLE.

LATHE.

No. 267,354.

Patented Nov. 14, 1882.



Attest
E. S. Wallace
J. D. Lisle

Inventor
Jacob B Lisle

UNITED STATES PATENT OFFICE.

JACOB B. LISLE, OF SPRINGFIELD, OHIO, ASSIGNOR TO HIMSELF AND
OLIVER S. KELLY, OF SAME PLACE.

LATHE.

SPECIFICATION forming part of Letters Patent No. 267,354, dated November 14, 1882.

Application filed June 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB B. LISLE, of Springfield, county of Clarke, State of Ohio, have invented a new and useful Improvement in Taper Attachments for Slide-Lathes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a slide-lathe with my improved taper attachment illustrated thereon. Fig. 2 is a perspective view of my improved taper attachment, illustrated as detached from the lathe; and Fig. 3 is a plan view of the same.

This invention relates to a mechanical device known as a "taper attachment for turning-lathes;" and it consists in combinations and arrangements of mechanism whereby said taper attachment may be readily attached to an ordinary slide-lathe without previous provisions having been made for its reception, and the slide-rest have a cross-feed independent of the mechanism that produces the desired angularity of travel.

To enable others skilled in the art to which my invention belongs to make and use my improvements, I will proceed to describe their construction and operation.

In the accompanying drawings, A represents an ordinary slide-lathe, in which *b* is the head-stock; *c*, the tail-stock; *d*, the slide-rest; *e*, the guide, and *f* the shears. To the tail-rest *c*, I secure a lug, *g*, by means of screws *h*, for the suitable reception of which I drill and tap said tail-stock in the manner shown. To the lug *g*, I pivot a bar, *i*, by means of a pin, *j*. Upon the shears *f*, at any convenient point, I mount an adjustable bridge, *l*, provided with an elongated aperture, *m*, through which passes a screw-bolt, *n*, that is used to secure the adjustable end of the bar *i* to any desired angle in relation to the axis of the lathe. Upon the bar *i*, I mount a slide, *p*, that carries an adjustable bearing, *q*, for the journal *r* (shown in dotted lines on Fig. 3) of a threaded shaft, *s*. This threaded shaft is provided with a hand-wheel, *t*, that is secured to it by a spline, a screw, and nut, or in any other of the well-known methods used for similar purposes. The

aforesaid bearing *q* is provided with elongated perforations *u*, through which pass the cylindrical screw-bolts *v*, by means of which said bearing may retain a fixed position relative to the shaft *s*, while the slide *p*, upon which it is mounted, receives the same angle as the bar *i*, upon which it rides.

The threaded shaft *s* fits into a threaded aperture, *w*, made in a metallic T-piece, *x*, that is also provided with apertures *y*, through which screw-bolts *z* pass on their way to coincident perforations made in that portion of the slide-rest *d* moving on "ways" suitable for its cross-traverse.

I use a lock-nut, *a*, for the purpose of securing the screw-shaft *s* from turning after the bar *i* has been set to the desired angle of cut, and the cutting-tool, fast in the tool-post *b'*, has been brought up to its work, by which means I obviate any accidental change from foreign causes.

After my improved attachment has been properly secured to a lathe, in the manner hereinbefore described, its mode of operation is as follows: The nut upon the screw-bolt *n* is loosened, as are also the screw-bolts *v v*. Then the screw-bolt *n* may be moved in the slot *m* until the bar *i* has arrived at the desired angle, at which time the screw-bolts *n v v* are again tightened and the lock-nut *a* is loosened, to permit the setting of the tool by turning the hand-wheel *t*. The lock-nut *a* is then tightened against the T-piece *x*, and the lathe is ready for work.

It is obvious that lazy-tongs or a telescopic shaft may be substituted for the screw-shaft *s* without departing from the spirit of this invention, although they would not be suitable for the independent cross-traverse of the slide-rest.

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

1. A taper attachment for slide-lathes, embodying within itself the following elements: a lug, *g*, to be attached to the tail-rest of the lathe, a bar, *i*, pivoted to said lug, a slide, *p*, riding upon bar *i*, and carrying an adjustable bearing for the journal of a threaded shaft, *s*,

a metallic piece, *x*, that may be secured to a slide-rest, and a slotted support, *l*, attached to any convenient part of the lathe, for the purpose specified.

- 5 2. A taper attachment for slide-lathes, embodying within itself the following elements: a lug, *g*, attached to or forming a part of a slide-rest, a bar, *i*, pivoted to said lug, a slide, *p*, riding upon bar *i*, and carrying an adjustable

bearing, *q*, a shaft, *s*, or its equivalent, and a slotted support for the adjustable end of bar *i*, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand.

JACOB B. LISLE.

Witnesses:

JOHN FITZPATRICK,
C. A. BELKNAP.