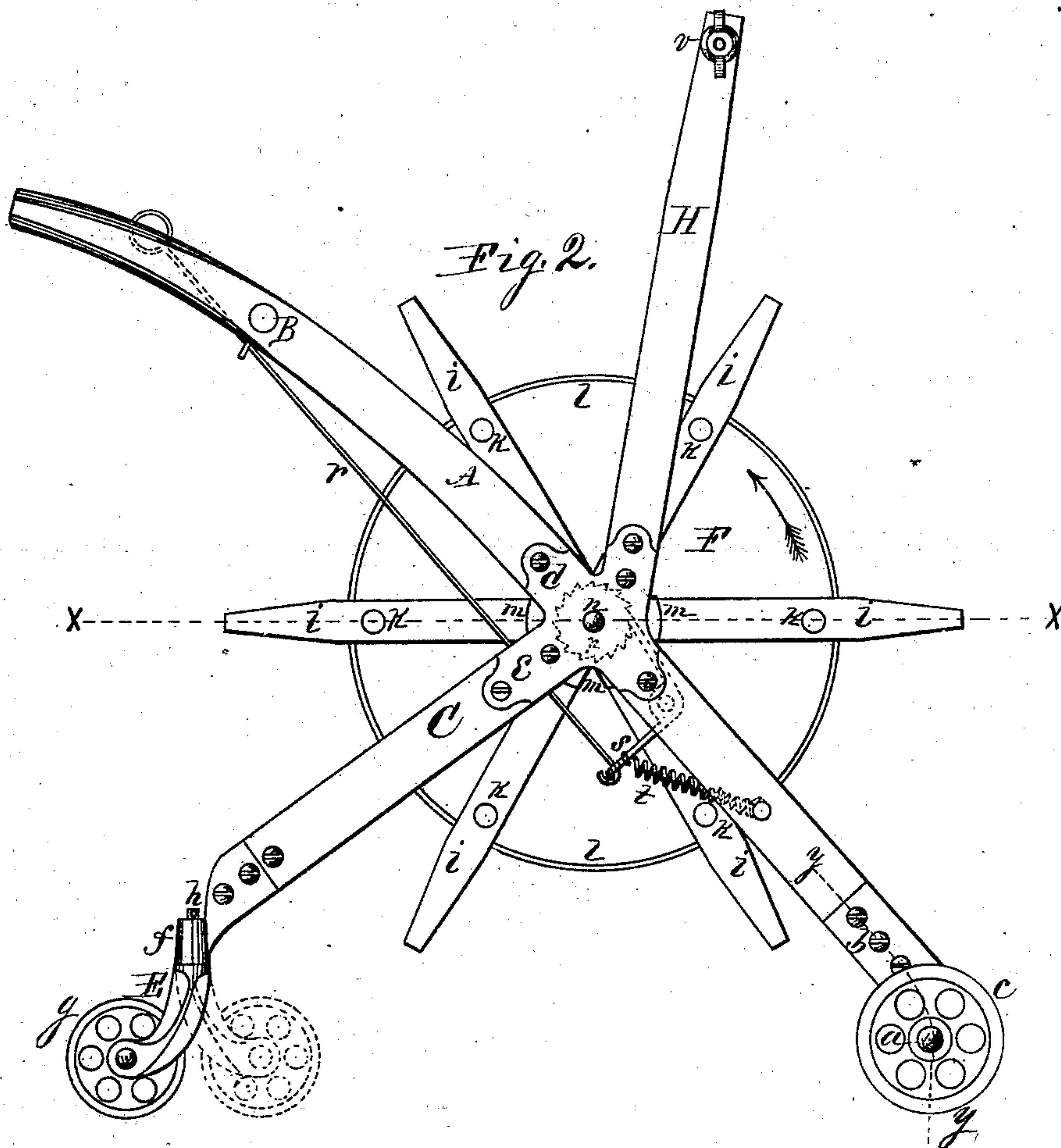
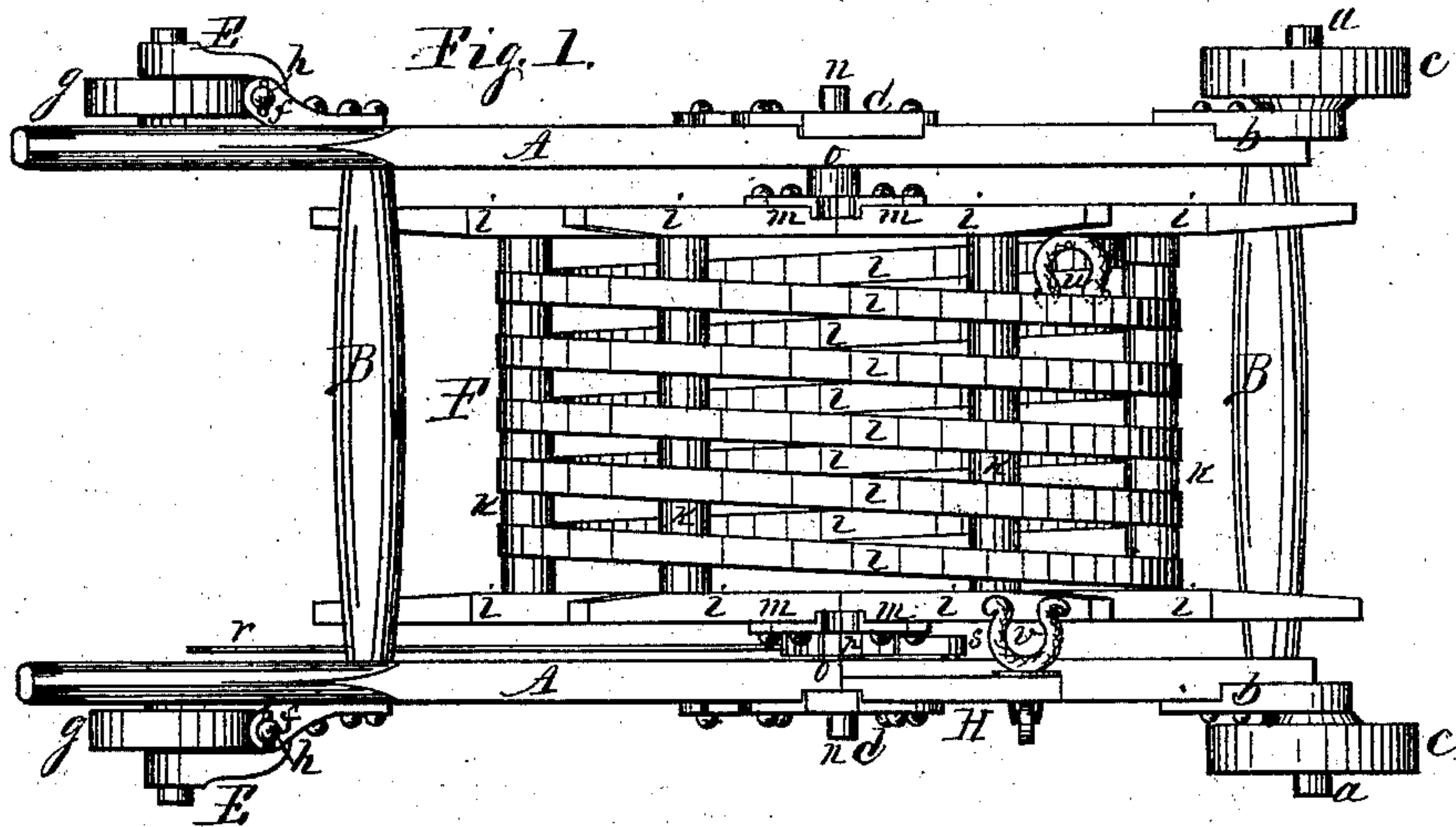


B. F. STONER.
Hose-Reel.

2 Sheets—Sheet 1.

No. 225,081.

Patented Mar. 2, 1880.



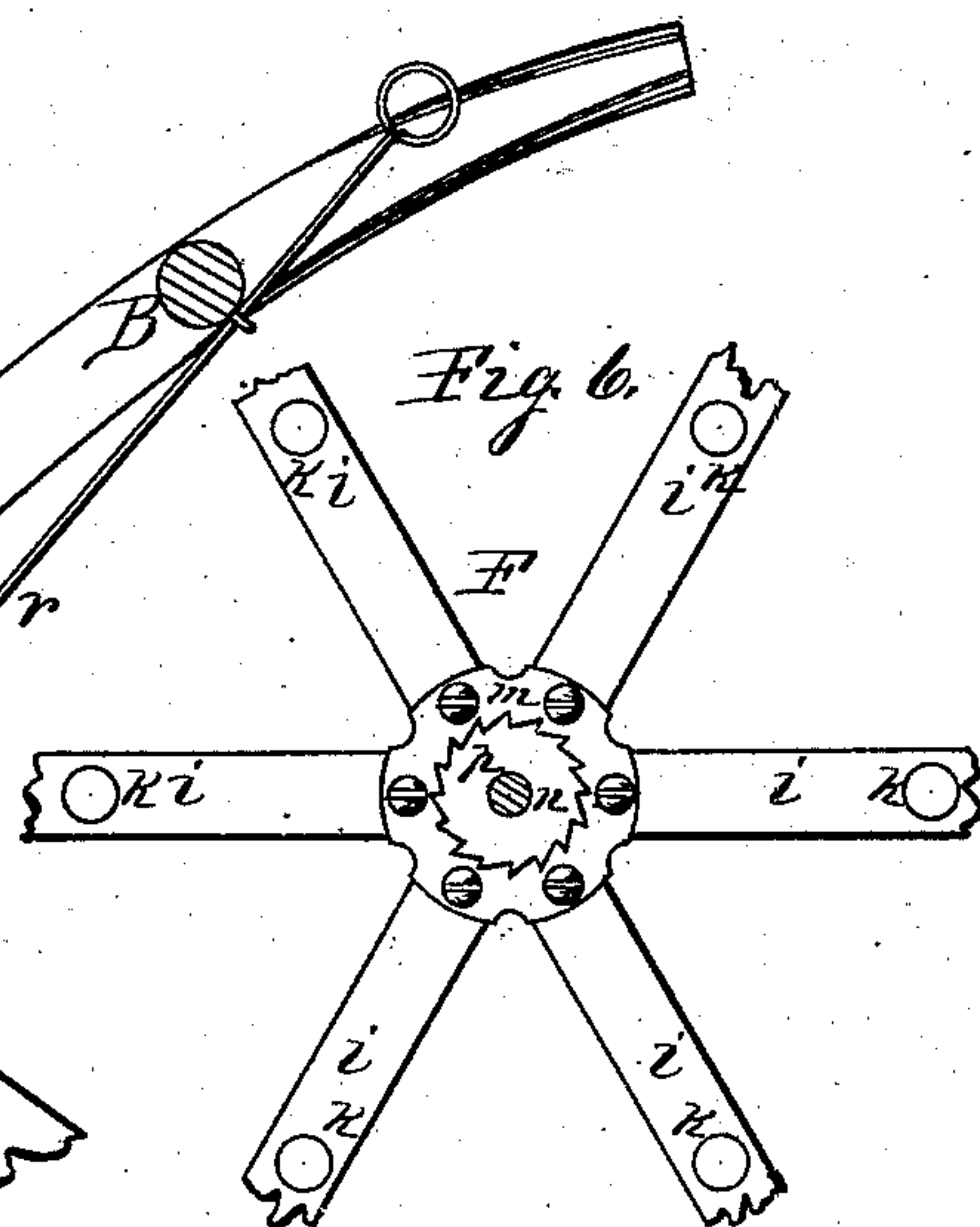
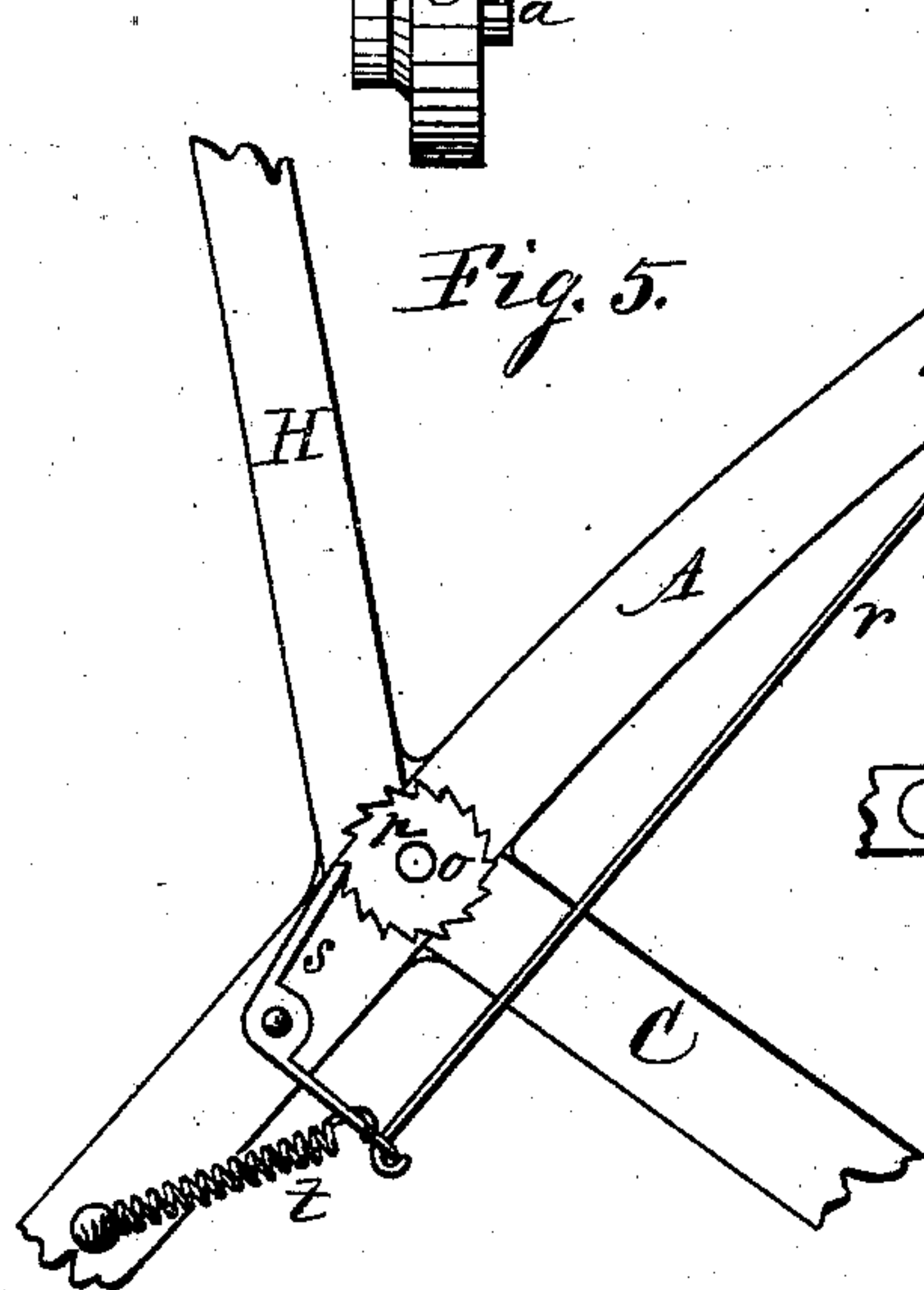
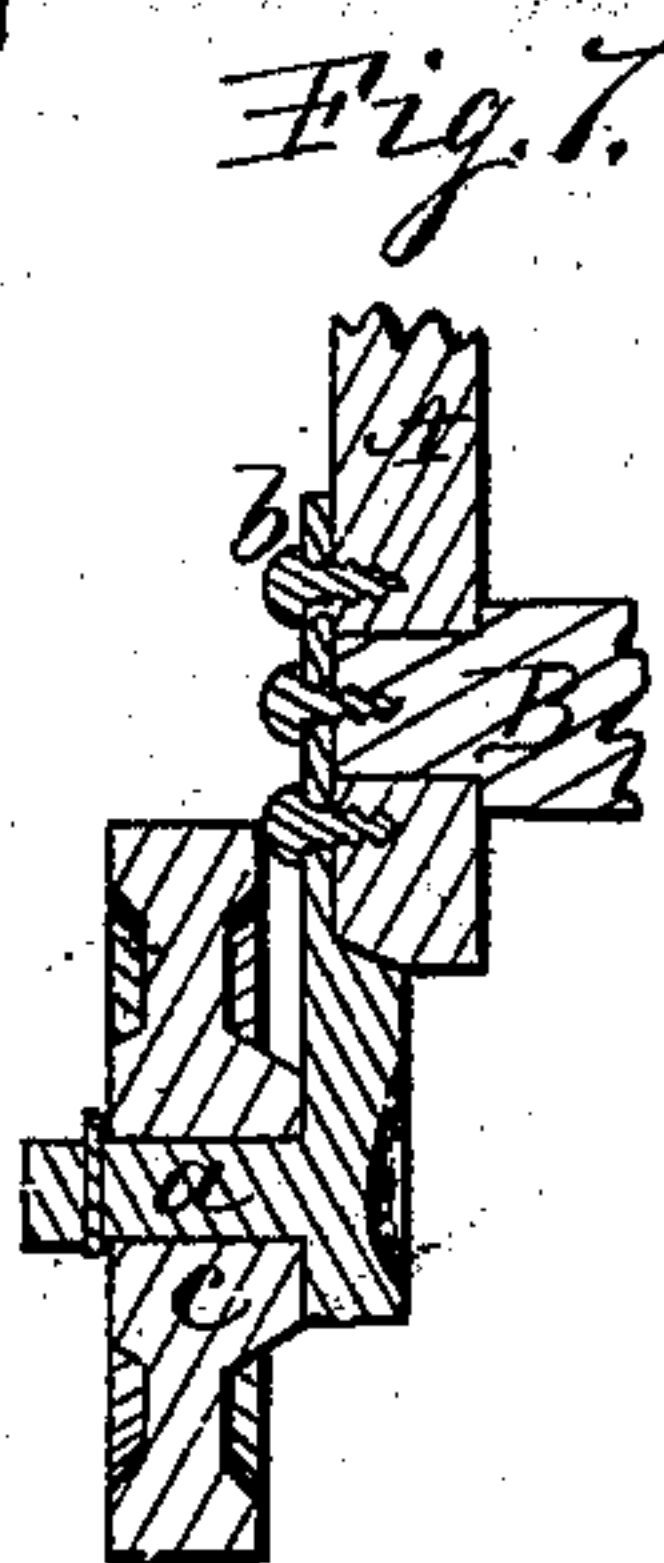
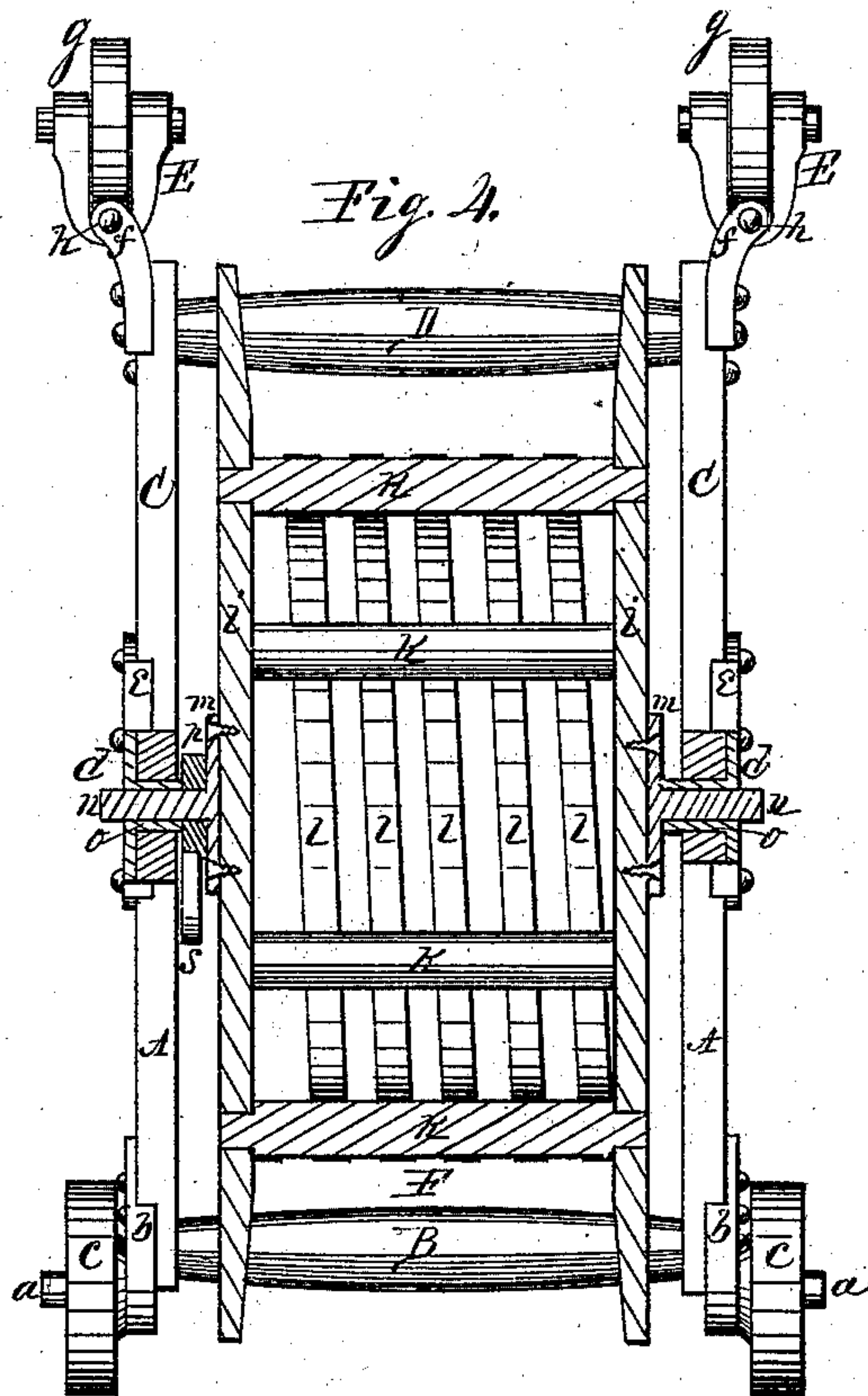
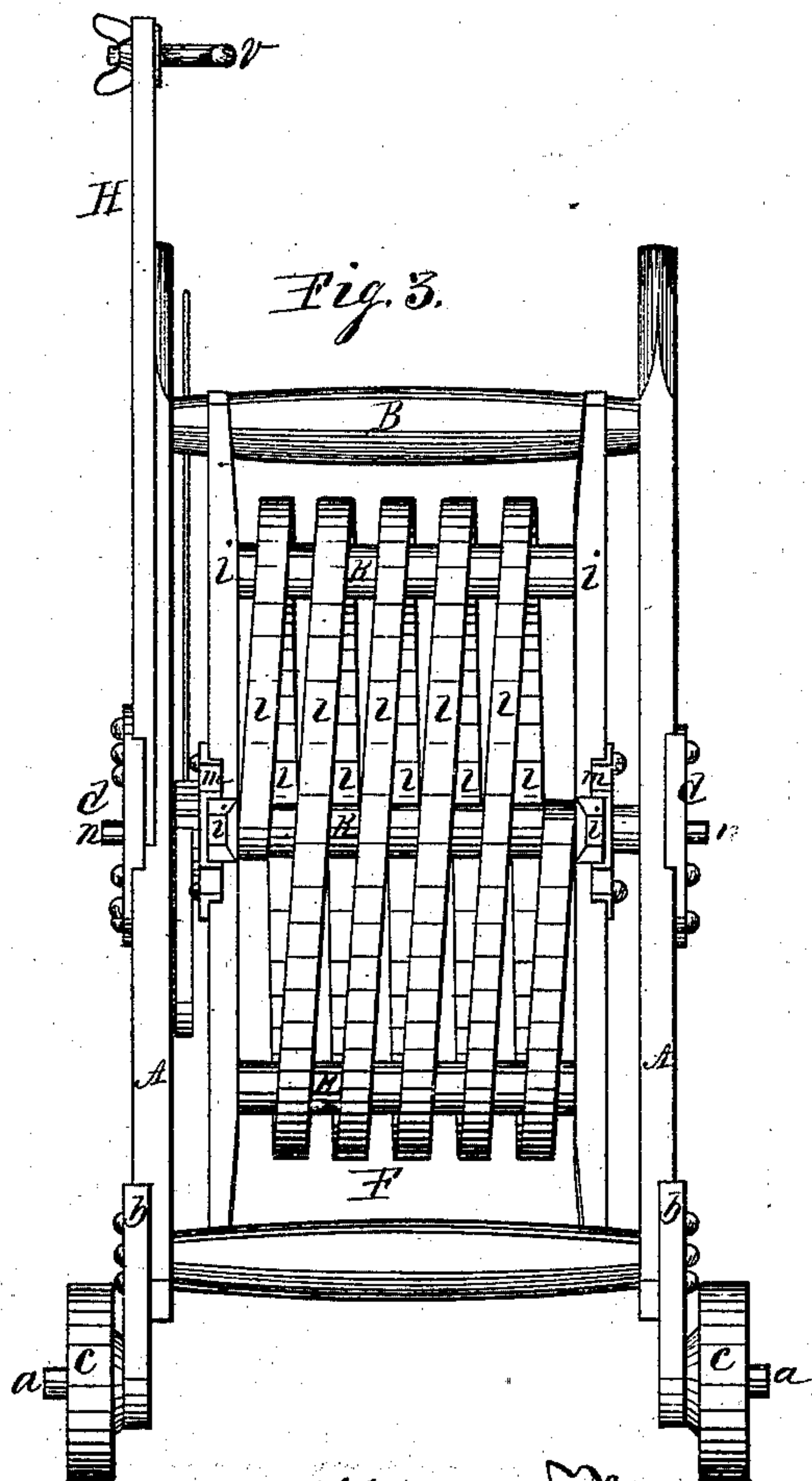
Witnesses,
Israel Sovereign
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Att'y.

UNITED STATES PATENT OFFICE.

BENJAMIN F. STONER, OF ROCKFORD, ILLINOIS.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 225,081, dated March 2, 1880.

Application filed May 28, 1879.

To all whom it may concern:

Be it known that I, BENJAMIN F. STONER, of the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Hose-Reels, of which the following is a specification.

This invention relates to that class of hose-reels known as "yard-hose reels," designed for handling yard-hose in connection with yard-hydrants.

The object of this invention is to produce a hose-reel mounted on a suitable carriage to revolve thereon, and adapted to handle hose in connection with hydrants, more especially for yard purposes.

In the drawings, Figure 1 is a plan view of my improved hose-carriage and the reel mounted thereon, of which Fig. 2 is a side elevation; Fig. 3, a front elevation, and Fig. 4 a horizontal section on dotted line *x*. Fig. 5 is an inside view of a portion of the frame with the spring-pawl and the operating-rod attached. Fig. 6 is an end view of the reel with ratchet-wheel mounted thereon. Fig. 7 is a sectional detail of one of the carrying-wheels on dotted line *y*.

In the figures, A represents the main beams of the carriage-frame, which are connected near their forward ends and toward their handle ends by means of cross-rounds B, which are framed and firmly fixed therein, producing a rectangular frame of proper width to receive a hose-reel of suitable length. *a* are axle-arms, which project laterally from the forward ends of the flanged plates *b*, which are fitted to receive the forward ends of the side beams, to which they are securely bolted. *c* are carrying-wheels fitted to receive the axle-arms to revolve freely thereon.

The center portions of the main beams are fitted with a spider, *d*, having arms flanged to embrace the beams, and are firmly bolted thereto. These spiders are also fitted with arms *e*, which project from their under edges rearward, and are flanged to receive the upper end of the rear supporting-beams, C, which are firmly bolted thereto. The rear portion of the supporting-beams C are connected by a cross round, D, which is framed and firmly fixed therein. The rear ends of these supporting-beams C are fitted with vertical sock-

ets *f*, provided with flanged plates which embrace the beams, to which they are firmly bolted.

g are caster-wheels fitted to revolve on journal-bearings in the caster-yokes E, which are provided with journal-arms *h*, fitted to revolve or oscillate in the socket to permit the wheels journaled in the yokes to caster freely. These parts constitute the carriage of my improved hose-reel. In this frame the spiders *d* are provided with center tubular bearings, *o*, which extend through the side beams and receive the journal-bearings of the reel, on which it is supported to revolve in the frame.

F represents the reel, the frame of which consists of like heads composed of arms *i*, which cross each other in their lengthwise centers, at which point they are joined on each other to produce even side surfaces. These heads or end frames are connected to each other to produce a reel by means of rounds *k*, having their ends framed and firmly fixed in the arms *i* at a suitable point between their lengthwise center and outer ends.

l represents a metallic strip of suitable size wound spirally over the rounds *k*, to which it is fixed at proper intervals between the heads or ends of the reel, producing a reel of open-drum form on which to wind the hose. Instead of winding the strip spirally over the rounds it may be placed thereon in separate pieces in hook form, and instead of the metallic strip any suitable material may be employed.

By this construction I produce a reel of drum form on which to wind the hose, which prevents the abrupt bending thereof at each cross-round, common in this class of reels, which tends to check the flow of water, and soon causes the hose to break or crack at each bend, and the open form of drum permits the free escape of water from its coils, which, in connection with a free circulation of air, aids in drying the hose.

m are plates of spider form, adapted to embrace the reel-arms at their central crossings, and are fixed thereto on the outer ends of the reel. These plates are provided with journal-arms *n*, which project outward from their centers, and are fitted to enter the tubular bearings *o* of the center spiders, *d*, to support the

reel to revolve thereon in the frame or mounted in the carriage.

p is a ratchet-wheel fixed to the reel, and, in connection with a pawl, *s*, pivoted to the frame and adapted to engage the teeth of the ratchet-wheel, serves to hold the reel to prevent the hose spinning or running therefrom. *t* is a spring operating to hold the pawl in contact with the ratchet-wheel to insure its engagement with the teeth thereof. *r* is a rod connected to the free end of the pawl and extending within easy reach of the handle ends of the side beams, by means of which the operator may disengage the pawl to permit the reel to revolve to pay out the hose when required. *u* is a yoke-like clasp fixed to the reel, into which the end portion of the hose may be pressed to prevent the hose running from the reel when wound thereon.

H represents a nearly-vertical nozzle-supporting standard which rises from the carriage, having its lower end firmly bolted to a flanged arm which rises from the center spider. The upper portion of this standard is fitted with a yoke-like clasp, *v*, to receive the nozzle end of the hose. This yoke-like clasp is made adjustable in the standard by means of its screw-threaded shank, which is passed through the standard and fitted with a thumb-nut, by means of which it can be fixed in position when adjusted to deliver the water issuing from the nozzle in the direction desired.

In the use of my improved hose-reel the nozzle end of the hose is placed in the yoke-like clamp *u* on the reel. The reel is then revolved in the direction of the arrow, which will cause the hose to be wound thereon. The carriage can then be moved on its wheels into position, the caster-wheels permitting it to be turned in any direction, and when in position at the hydrant the free end of the hose can be connected therewith, and the operator can disengage the pawl from the ratchet by means of the rod *r*. The carriage can then be moved to the position required, in which operation the hose will be unwound from the reel, and when in the position desired the nozzle end of the hose can be disengaged from the clamp in the

reel and placed in the clamp in the standard, and adjusted to deliver the water discharged therefrom, as may be desired. After use the hose can be rewound on the reel, as in the first instance, and the carriage can then be moved on its wheels to carry the hose to any place for use or storage.

By this construction I produce a convenient, reliable reel capable of handling hose with ease for the purpose for which yard-hose is usually employed.

I claim as my invention—

1. A hose-carriage frame consisting of like side frames, composed of two beams united at their junctional point by a central spider-plate having flanged arms to embrace the beams and a tubular center bearing to receive the journal-bearings of the reel, the side frames connected by cross rounds or bars to produce a hose-carriage frame, substantially as hereinbefore set forth.

2. The combination, with a hose-reel, of an open rim or drum composed of a strip wound spirally on the cross-rounds of the reel, or made in separate pieces and placed thereon in hoop form, substantially as and for the purpose hereinbefore set forth.

3. In a hose-carriage, the combination, with two pairs of forwardly and rearwardly diverging legs independently mounted on wheels, the two rear ones being caster-wheels, of two handles projecting rearward and upward, whereby the carriage supported on said four wheels may be readily moved by the handles in any direction, substantially as set forth.

4. In a hose-carriage, a side frame consisting in the combination, with a forwardly-inclined leg and a rearwardly-inclined leg, of a rearwardly-projecting handle, and an independent standard carrying a nozzle-supporter, said four parts diverging radially from a common center and secured together at said point by a spider, substantially as set forth.

BENJAMIN F. STONER.

Witnesses:

SAML. N. JONES,
A. O. BEHEL.