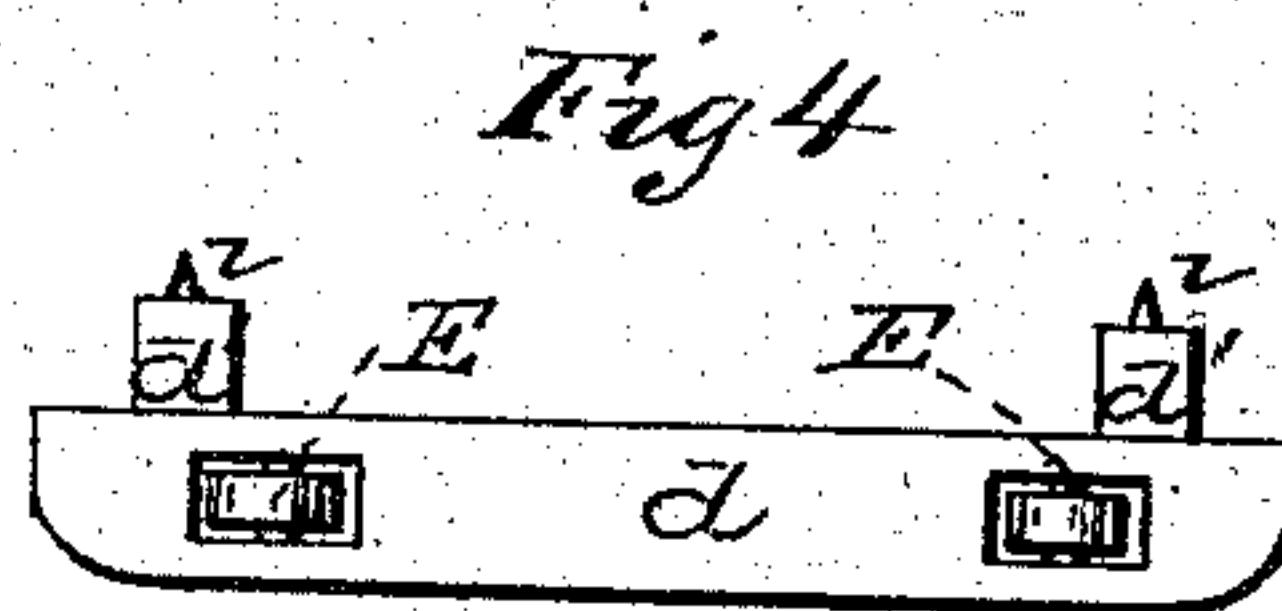
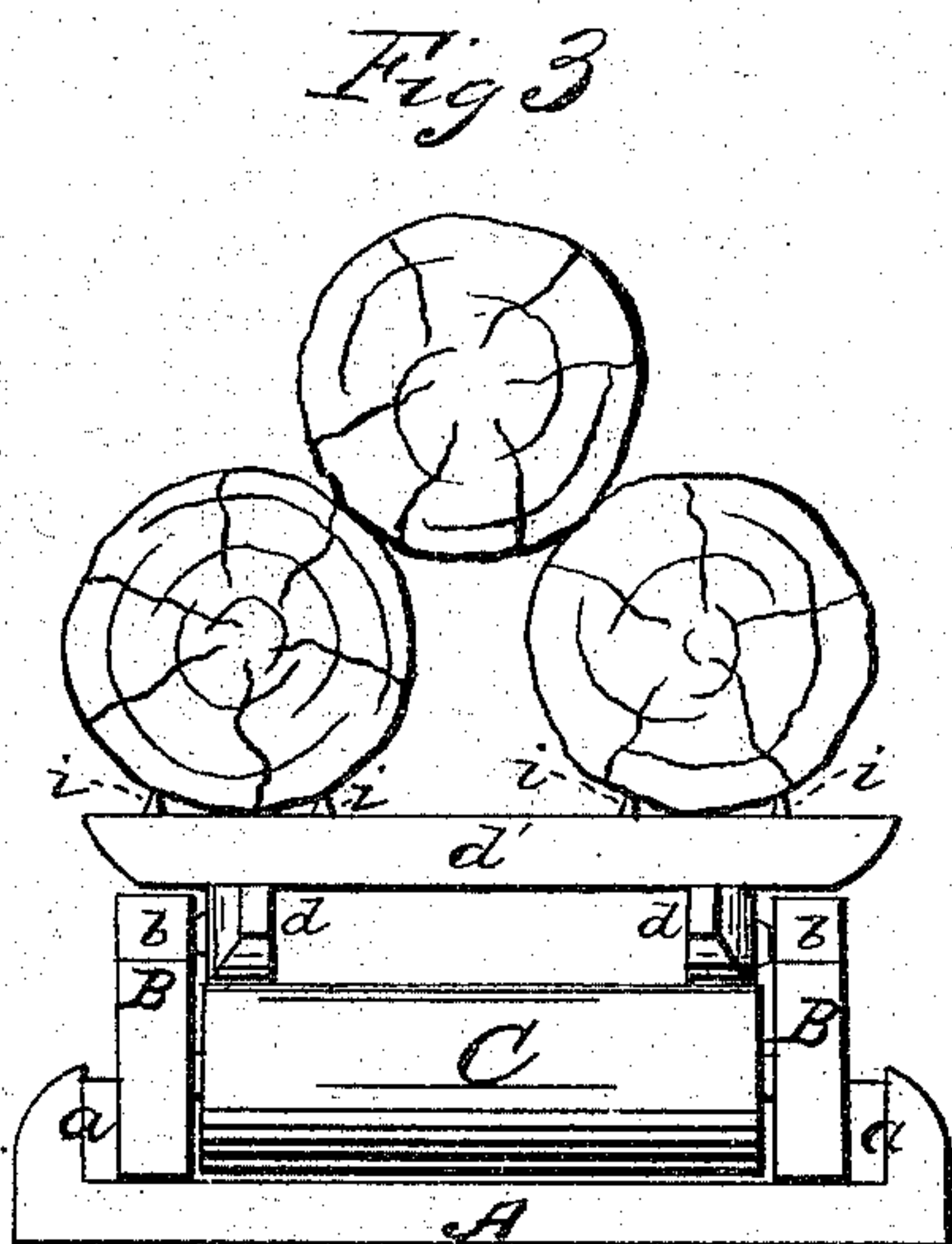
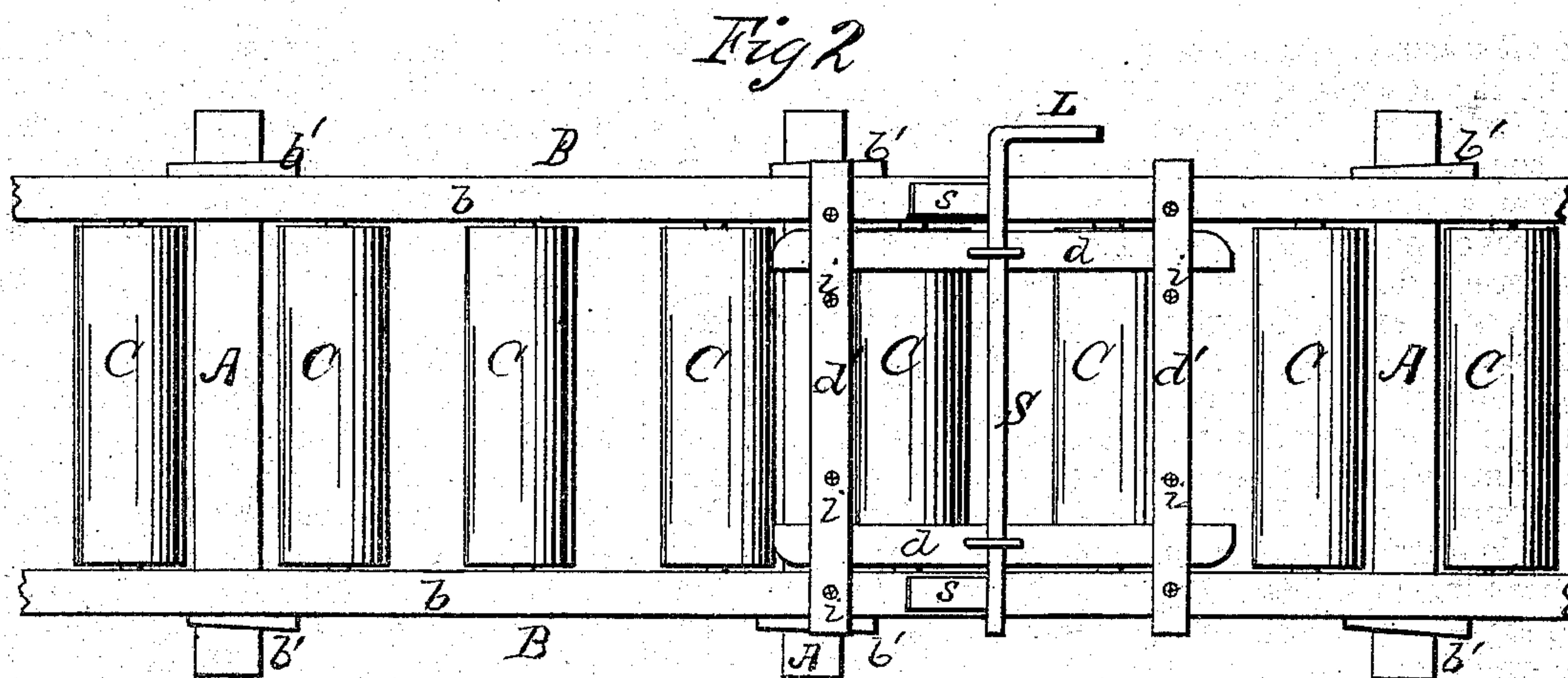
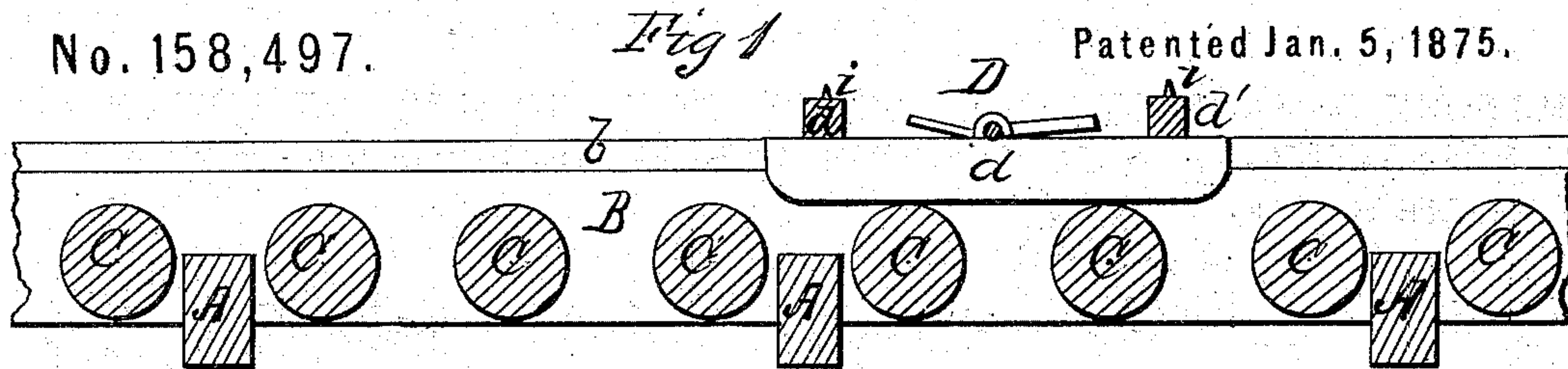


C. B. JACKSON & C. N. HUMPHREY.

Roller Log-Slides.

No. 158,497.

Patented Jan. 5, 1875.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHANCEY B. JACKSON AND CHARLES N. HUMPHREY, OF PHILIPSBURG,
PENNSYLVANIA; SAID HUMPHREY ASSIGNOR OF HIS RIGHT TO HOOVER,
HARRIS & CO.

IMPROVEMENT IN ROLLER LOG-SLIDES.

Specification forming part of Letters Patent No. 158,497, dated January 5, 1875; application filed
November 21, 1874.

To all whom it may concern:

Be it known that we, CHANCEY B. JACKSON and CHARLES N. HUMPHREY, of Philipsburg, in the county of Centre and State of Pennsylvania, have invented a new and valuable Improvement in Rolling Log-Slides; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical central section of our rolling log-slide. Fig. 2 is a plan view of the same. Fig. 3 is an end view, and Fig. 4 a detail view.

This invention has relation to rolling log-slides of the portable kind, wherein a suitable log-sled receives motion by being shoved over the surfaces of rollers mounted in suitable stringers; and the nature of the invention consists, first, in the employment of a log-sled moving on rollers journaled in suitable stringers and having horizontally-rotating anti-friction wheels, in combination with a crank-shaft provided with brakes, as hereinafter more fully set forth; it also consists in a series of rollers which are removably applied in bearings in longitudinal detachable stringers, which are themselves removably applied to detachable ties, whereby the various constituent parts of the rolling slide may be taken apart and conveniently carried wherever needed, being simply laid, not fastened, upon the soil.

In the annexed drawings, A designates the detachable cross-ties of our improved log-slide, having at or near each end a deep rectangular notch, *a*, into which are received the stringers B, having upon their upper surfaces metallic strips *b*. These stringers afford bearings for a series of rollers, C, of equal diameters, and they are so arranged in the said stringers that their upper surfaces are in the same horizontal plane. These rollers are secured into the stringers, and the latter into the notches *a* of cross-ties A, by means of wedges *b'*, which are driven, as shown in Fig. 2, into the

said notches, between its outer vertical faces and the outside of the said stringers, thereby rigidly but removably clamping them together. When from any cause it becomes necessary to separate the slide and its various parts, a detaching of the wedges from the notches *b* will secure the desired result, so that, when the slide is required in some other locality, it may be conveniently loaded in wagons and carried thereto. The upper edge of the stringers B we have caused to project some distance above the upper surface of the rollers C, as shown in Fig. 3, for a purpose hereinafter explained. D indicates our improved log-sled, consisting of two or more longitudinal runners, *d*, rigidly braced by two or more bolsters, *d'*. The upper surfaces of these bolsters are armed with a number of studs, *i*, which will prevent a log or logs, when loaded upon the sled, from rolling off. We may, by this means, apply a third log thereon lying between the first two, as shown in Fig. 3, the said studs still preventing lateral displacement of the said logs. We thus dispense with the usual bolster-standards, which, by their increased leverage, soon force out the ends of the bolsters, necessitating their frequent renewal at considerable expense of time and money. E designates rollers which are applied in recesses in the outer walls or surfaces of the runners, so that they rotate on their spindles in a horizontal plane. These rollers are designed to bear against the inner surfaces of that portion of the stringers B which extends above the upper surfaces of the log-rollers C, so that when the laden sleds are being moved along the slide, in their progress to a river or railroad, all friction of the runners against the stringers will be done away with under any circumstances, either in going in a straight line or around a curve.

Heretofore it has been impossible to use similar slides to advantage in passing around a curve, as the sleds invariably became jammed in the stringers, requiring no little effort to effect their extrication, but by the use of the above-described rollers this defect is effectually remedied.

There being no friction of any consequence,

either of the sled against the rollers C, or against the stringers B, it has been found necessary to produce a certain amount thereof, which might be applied as wanted, for the purpose of checking the rush of the heavily-loaded sleds down an incline, and to this end we have devised the following brake: We first apply a transverse shaft, S, to the sled, the said shaft having suitable bearings in the runners *a* thereof, and being provided with metallic shoes *s*, which are actuated to bear against the metal strips *b* of stringers B, whereby the degree of friction necessary to be obtained is secured by means of a crank-arm, L.

In practice, we propose to make our improved slide of any width, and we may also dispense with the metallic strips *b* of the stringers; we may also construct the rollers C of iron, or, when made of wood, we may apply iron journals thereto and cover that part thereof most liable to be worn away by the sled-runners with sheet metal.

What we claim, and desire to secure by Letters Patent, is—

1. The log-sled D, having horizontally-rotating anti-friction wheels E, in combination with the crank-shaft S, provided with shoes *s s* and rollers C C, journaled in the stringers B B, the upper surfaces of which are provided with metallic strips *b b*, substantially as described and for the purpose set forth.

2. The detachable rollers C, stringers B, and cross-trees A, combined and arranged substantially as specified.

In testimony that we claim the above, we have hereunto subscribed our names in the presence of two witnesses.

CHANCEY B. JACKSON.
CHARLES N. HUMPHREY.

Witnesses:

GEO. H. ZIEGLER,
J. L. BAUMGARDNER.