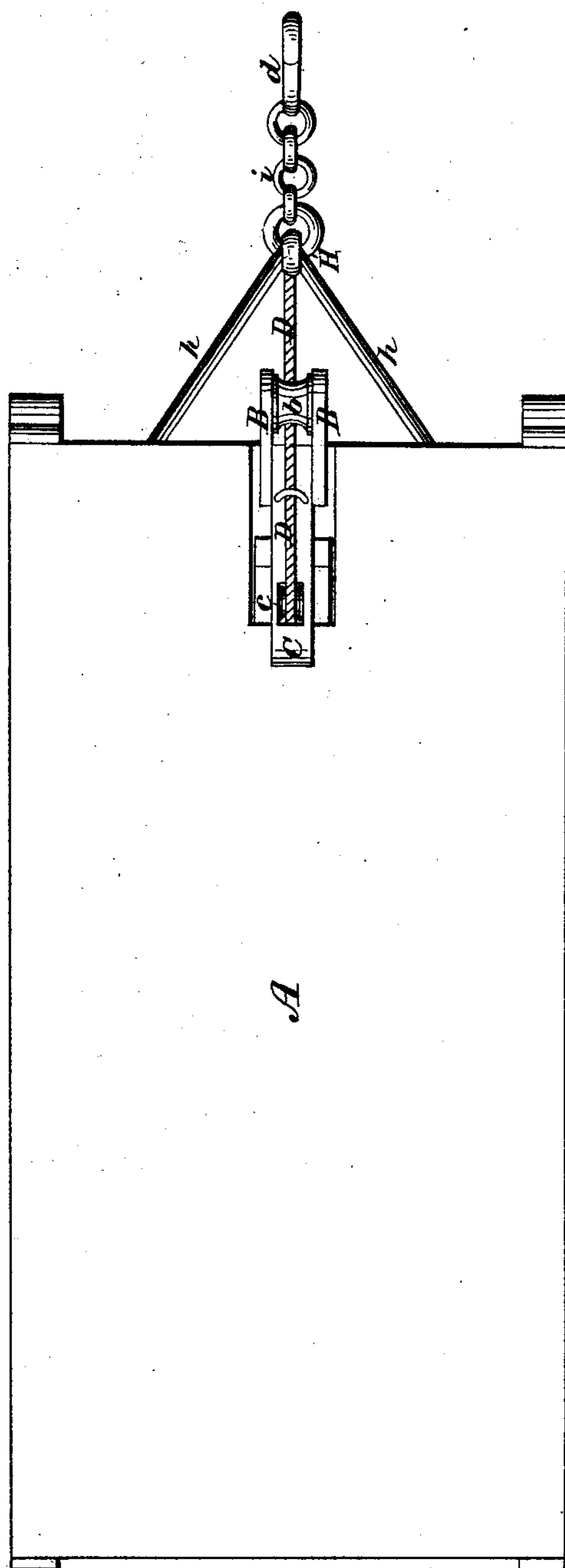


J. L. KNOLL.

Dumping-Sled.

No. 69,918.

Patented Oct. 15, 1867.



Witnesses:

E. J. Brown
J. B. Brown

Inventor:

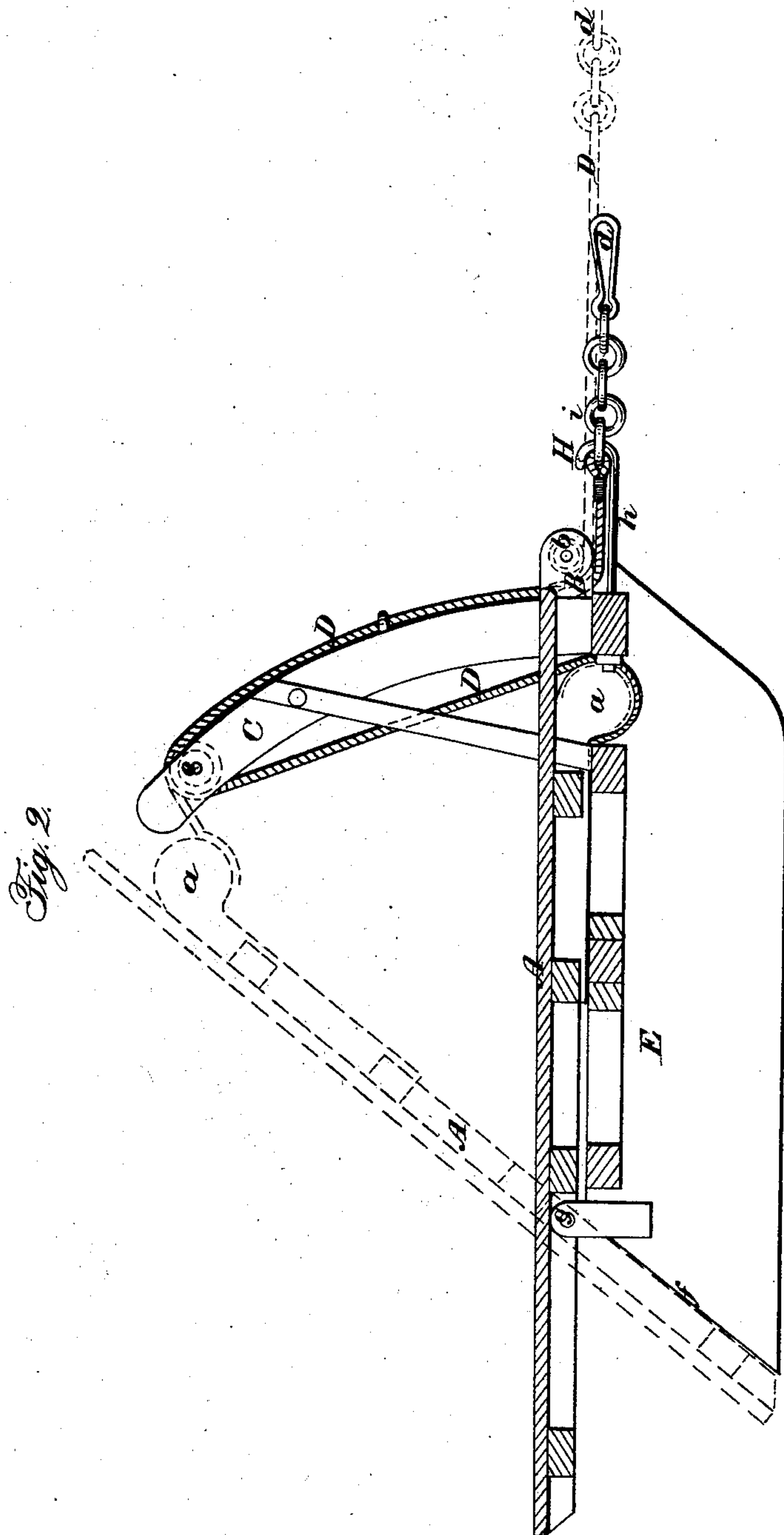
Jonas L. Knoll,
By his atty.,
Jas. Brown

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United States Patent Office.

JONAS L. KNOLL, OF HUMMELSTOWN, PENNSYLVANIA.

Letters Patent No. 69,918, dated October 15, 1867.

IMPROVEMENT IN DUMPING-SLED.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JONAS L. KNOLL, of Hummelstown, in the county of Dauphin, and State of Pennsylvania, have invented an improved Dumping-Sled for hauling and dumping manure and other substances; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification—

Figure 1 being a plan of the sled,

Figure 2 a longitudinal vertical section thereof.

Like letters designate corresponding parts in both of the figures.

Upon the runners or body E of the sled a platform, A, is located, and extends from near the front end of the body back a considerable distance to the rear thereof, substantially as shown. The rear ends of the runners also are sloped or inclined, as seen at *f*, fig. 2, so that when the platform A is tilted, as shown in red lines, fig. 2, it will rest thereon, and thus limit the extent of its tilting. The projection of the platform to the rear of the runners does not exceed the distance down the slopes of the runners behind, as shown, and, of course, is considerably less than the remaining length of the platform, so that it requires considerable power to tilt it, more than can ordinarily be exerted by the driver. I provide a convenient device, by which the team is employed for dumping, as follows: A strong standard, C, is erected on the front end of the sled body, leaning backward, and preferably having a curved form, concentric with the roller *g*, on which the platform tilts, at the rear end of the sled body. In the top of this standard is a friction-pulley, *c*. Another friction-pulley, *b*, is located in bearings B B, at the front of the sled, nearly at the same height as the draught-hook H of the sled. The said draught-hook is connected by rods *h h*, or otherwise, with the sled, so as to extend forward somewhat beyond the front end of the sled body. A strong rope or chain, D, is attached at *a* to the front end of the platform A, and extends thence first up over the pulley *c* of the standard C, then down under the pulley B, and is secured to the draught-chain *i*, all substantially as shown. The sled is drawn by hitching to the hook *d* of the draught-chain *i*, and the latter is hitched to the draught-hook H. When thus arranged for hauling, the rope or chain D is not drawn upon, but is long enough to allow the platform A to rest upon the sled body. But when it is required to tilt the platform, the draught-chain *i* is unhitched from the hook H, and then the team draws upon the rope D, and tilts the platform, as seen in red lines, fig. 2, and thereby dumps the load.

What I claim as my invention, and desire to secure by Letters Patent, is—

The dumping apparatus, constructed and operating substantially as and for the purpose herein specified.

The above specification of my improved dumping-sled, for drawing manure, &c., signed by me this sixth day of April, 1867.

JONAS L. KNOLL.

Witnesses:

JESSE B. HUMMEL,
DAVID GINGRICH.