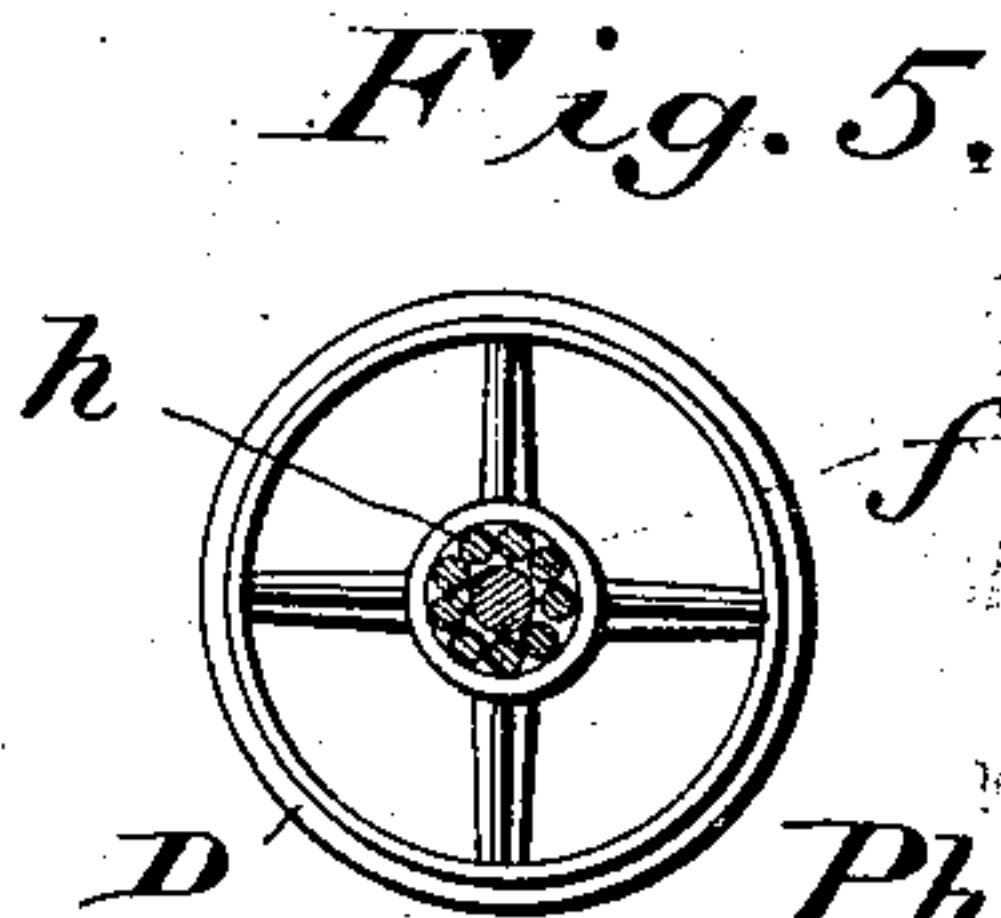
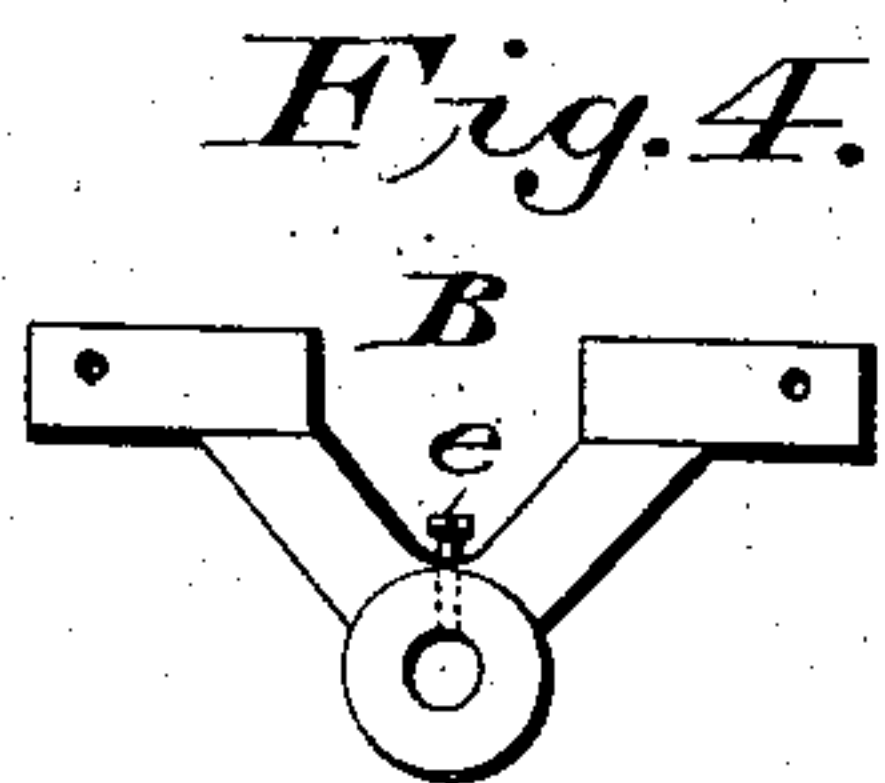
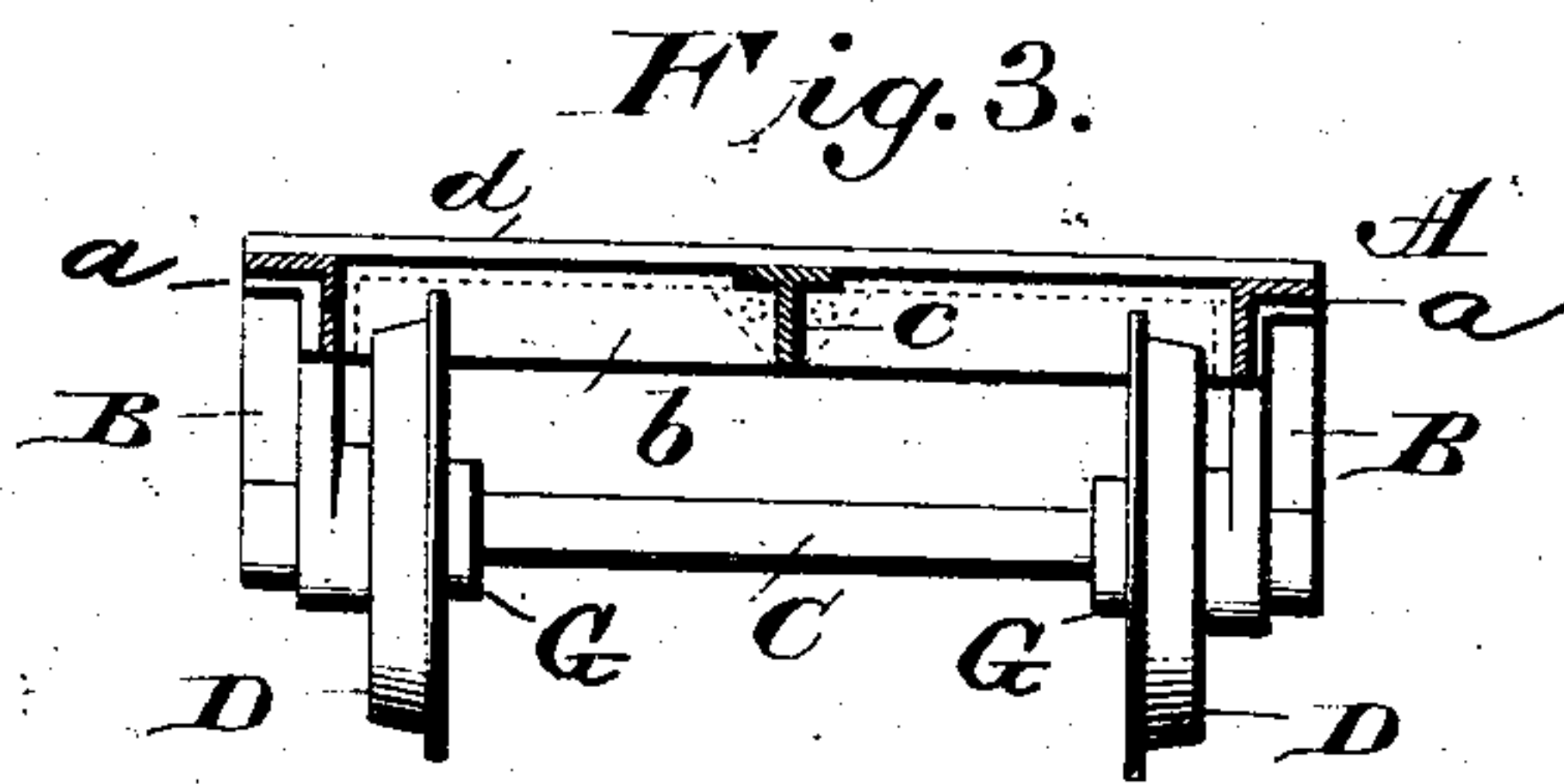
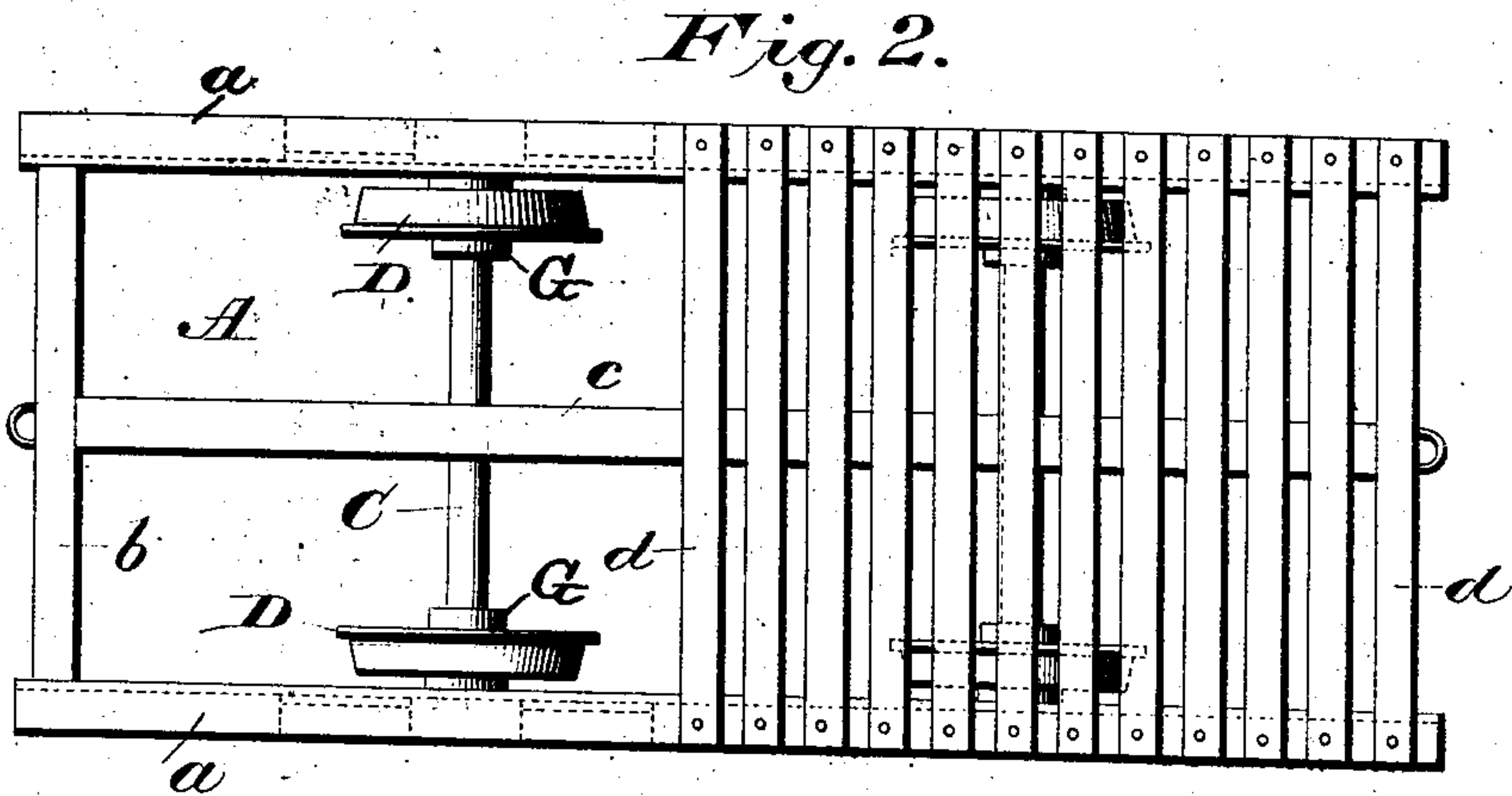
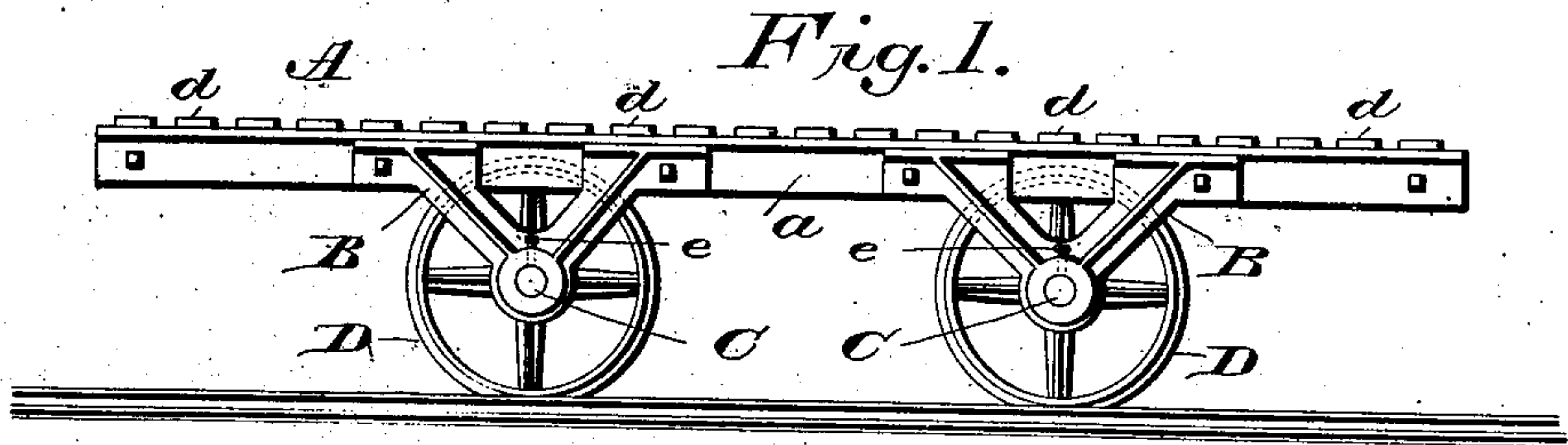


(No Model.)

P. ARNOLD.
DRIER CAR.

No. 453,953.

Patented June 9, 1891.



Witnesses
L. S. Elliott.
T. W. Johnson

Phineas Arnold.
Inventor
— by *[Signature]* Attorney

UNITED STATES PATENT OFFICE.

PHINEAS ARNOLD, OF CANAL DOVER, OHIO.

DRIER-CAR.

SPECIFICATION forming part of Letters Patent No. 453,953, dated June 9, 1891.

Application filed March 12, 1891. Serial No. 384,807. (No model.)

To all whom it may concern:

Be it known that I, PHINEAS ARNOLD, a citizen of the United States of America, residing at Canal Dover, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Drier-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in drier-cars, especially that class used in connection with a kiln for the purpose of a support in the process of drying preparatory to burning the brick or tiles, the same being designed as an improvement upon my patent, dated January 14, 1890, No. 419,306.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a drier-car embodying my improvements. Fig. 2 is a plan view. Fig. 3 is an end view. Fig. 4 is a detail view of one of the hangers. Fig. 5 is a side view of one of the supporting-wheels.

A refers to the frame of the car, which is made up of longitudinal side pieces *a a* of angle-iron. These side pieces are rigidly bolted to cross-pieces *b*, which are further connected to each other by a central longitudinal T-iron brace-beam *c*. Centrally the cross-beams *b* are provided with eyes to receive the draft-attachment.

To the upper edges of the longitudinal beams *a a* are bolted transverse supporting-slats *d*, upon which the bricks or tiles to be dried are placed, these flat strips being preferably made of metal.

To the outsides of the longitudinal beams *a a* are bolted or secured hangers *B*, these hangers being connected to each other by the

rigid axles *C*, which are secured to each hanger by set-screws or bolts *e*. By providing rigid axles the hangers are attached more securely to each other and greater rigidity is given to the same. The wheels *D* have enlarged central hubs *f*, against which lie the shoulders attached to or formed on the axle, while plates or coverings on the outer portion of the hangers cover the outer portion of said hubs. Within the hub is placed a series of anti-friction rollers *h*, having rounded ends, which may contact with the collar on the axle and the inner face of the hangers. By this construction it will be observed that each of the wheels will revolve independently while the axles are rigidly secured to the hangers.

In this class of cars it is not practical to use oil as a lubricant, as the same would be soon dried up when the car is placed in the drying-kiln, and by means of the bearing the wheels will rotate freely and the use of a lubricant is dispensed with.

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

In a drier-car, the combination, with the angle side bars or beams, end cross bars, and slats *d*, rigidly connecting the same, of a central longitudinal brace-beam, draft-eyes connected thereto, hangers or axle-supports *B*, rigidly secured to the side beams *a*, axles *C*, having enlarged portions *G*, the hangers being apertured to receive the axles and provided with clamp-bolts *e*, and supporting-wheels having enlarged hubs for the reception of anti-friction bearings, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PHINEAS ARNOLD.

Witnesses:

JOHN A. HOSTETLER,
GEORGE BETSCHER.