

H. J. MORTON.
BUNK CAR.

Patented May 11, 1897.

Fig. 1.

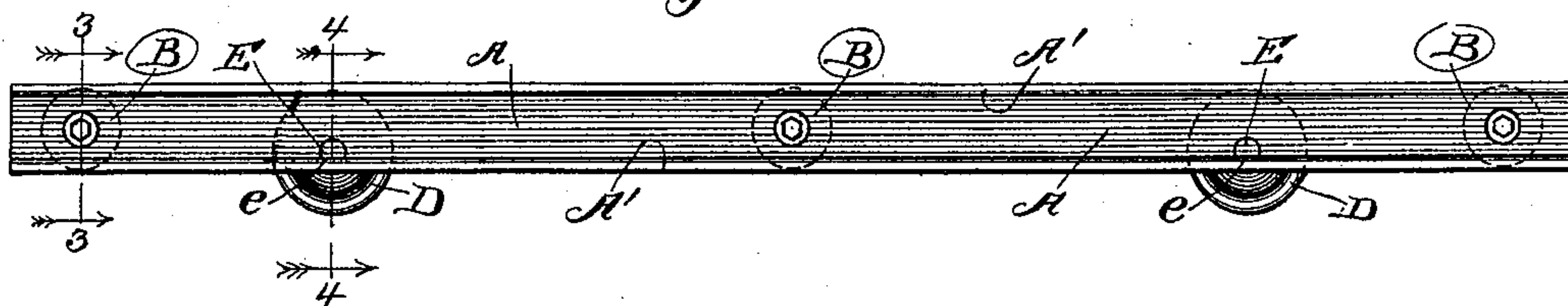


Fig. 2.

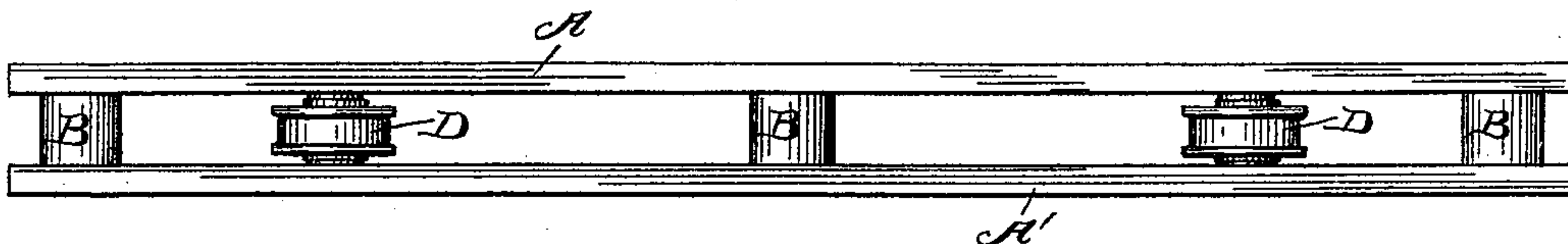


Fig. 3.

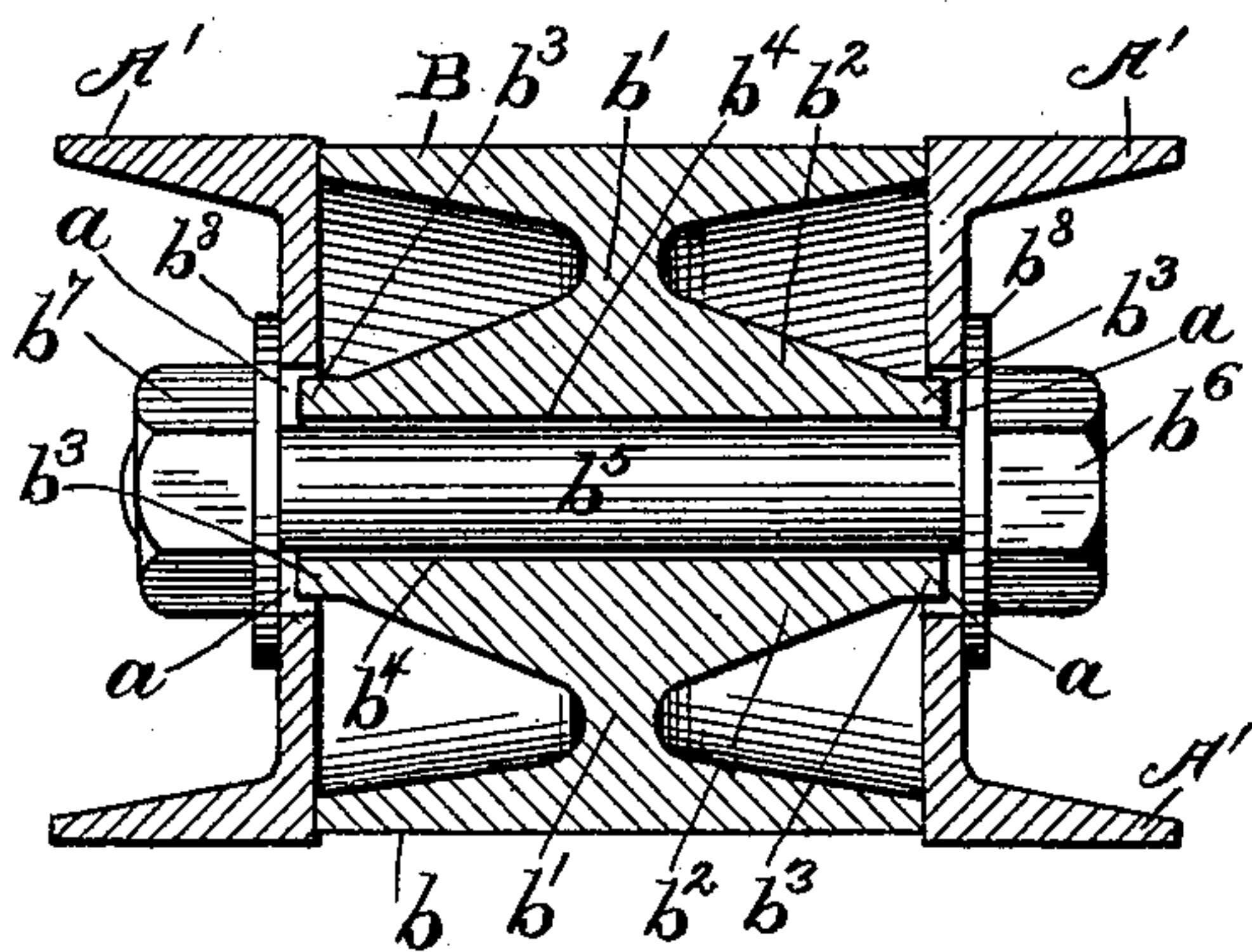
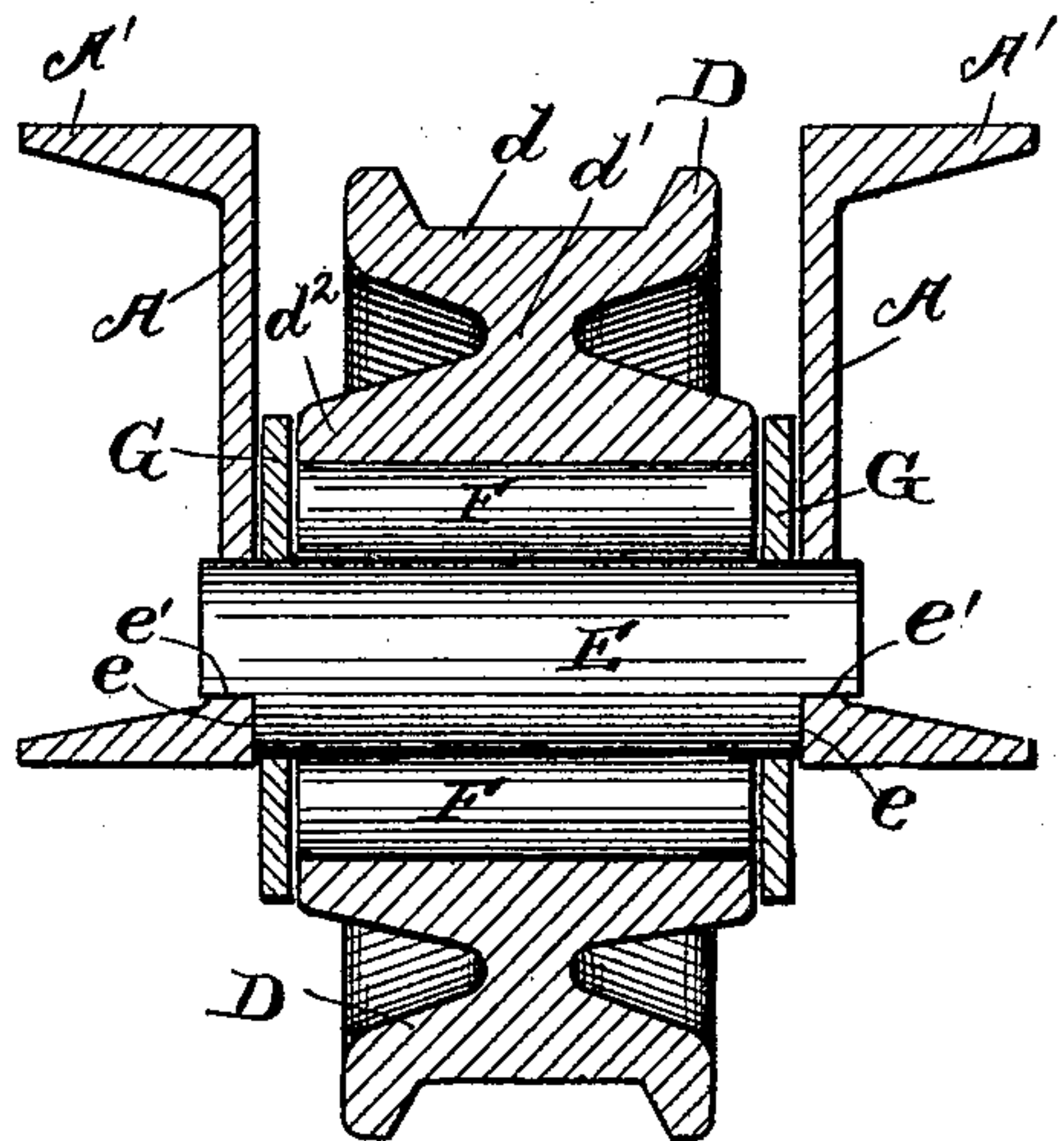


Fig. 4.



Witnesses:

R. J. Jacker.
E. G. Jacker.

By

Inventor:
Horace J. Norton,
John F. Brown,
Attys.

UNITED STATES PATENT OFFICE.

HORACE J. MORTON, OF CHICAGO, ILLINOIS.

BUNK-CAR.

SPECIFICATION forming part of Letters Patent No. 582,217, dated May 11, 1897.

Application filed February 27, 1896. Serial No. 581,028. (No model.)

To all whom it may concern:

Be it known that I, HORACE J. MORTON, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bunk-Cars for Lumber-Driers, of which the following, when taken in connection with the drawings accompanying and forming a part hereof, is a full and complete description sufficient to enable those skilled in the art to which it pertains to understand, make, and use the same.

The invention relates to bunk-cars ordinarily used for piling lumber thereon to be run into the drying-room of a lumber-drier and the lumber there seasoned while on such bunk-car and to be thereafter run out of such drying-room with the lumber thereon and unloaded. Such bunk-cars are usually used in sets of two or three, the lumber when of short lengths being supported at each end thereof on a bunk-car and when the lumber is of longer lengths a third bunk-car being placed underneath the center of the lumber.

The object of the invention is to obtain a bunk-car which can be constructed entirely of metal, preferably of steel; to obtain a bunk-car which shall be simple in construction, easily put together at the place of erection of a lumber-drier or lumber-kiln when shipped thereto in pieces, strong and durable, and not liable to breakage or to get out of adjustment or repair.

A further object of the invention is to obtain bunk-cars which when loaded can be easily moved into and out of the drying-room, together with the load thereon; and a still further object of the invention is to obtain a car which shall be lower than the bunk-cars now and heretofore in general use, whereby a greater number of courses of lumber can be piled thereon and gotten into a drying-room of a given height than heretofore.

In the drawings referred to and forming a part hereof, Figure 1 is a side elevation of a bunk-car embodying my invention; Fig. 2, a top plan view of such car; Fig. 3, a vertical sectional view on line 3 3 of Fig. 1, viewed in the direction indicated by the arrows; and Fig. 4, a vertical sectional view on line 4 4 of Fig. 1, viewed in the direction indicated by the arrows.

A reference-letter applied to a given part is used to designate such part throughout the several figures of the drawings wherever the same appears.

A A' are steel channel-irons, usually termed "channels," connected together by spreaders or separators B B B and supported or mounted on wheels D D.

The several spreaders or separators B B B are duplicates and each one thereof is constructed and secured in place between the channels A A', as follows:

b is the rim of the spreader or separator, usually and preferably circular in cross-section; b', the web thereof, and b² the hub. The hub b² is of slightly-greater length than the width of rim b—that is, the hub b² extends a short distance beyond the edge of the rim b, as is well illustrated in Fig. 3 of the drawings, so that such extension of the hub shall enter the holes a a', respectively, in the web of channels A A'.

b³ b³ are the extensions of hub b², and it will be observed that such extensions are not of sufficient length beyond the edge of rim b to extend through the web of the channels A A'—that is, the thickness of the webs of the channels A A', respectively, is greater than the extensions b³ b³ beyond the edges of rim b.

b⁴ is a hole through hub b², through which hole, as well as through holes a a' in channel-irons A A', respectively, the bolt b⁵ extends. Bolt b⁵ has head b⁶ at one end thereof, nut b⁷ on the other end, and washers b⁸ b⁸, adjacent to the web of the channels A A'.

When the several parts constituting the spreader or separator B are assembled in place, as illustrated in Fig. 3 of the drawings, the nut b⁷ is screwed up against the washer b⁸, adjacent thereto, so that such washer, as well as the washer b⁸, adjacent to the head b⁶, shall be brought against the web of the channel adjacent thereto sufficiently to spring the webs of the channel inward—that is, to bow them inwardly, (the amount of such spring being determined by the character of the steel forming the channels,) and thereby such webs exert a tensile strain on the bolts b⁵. The loosening of the nut b⁷ from the bolt b⁵ is thereby prevented, the washers b⁸ b⁸ being forced against the head b⁶ and nut b⁷, respectively.

Wheel D is constructed and mounted in place between the channels A A' in the following manner:

E is a stationary axle mounted between the webs of channels A A'. To bring the axle E down as low as possible in the channels A A', as well as to insure the rigidity and non-rotatability of such axles, a portion thereof is removed at each end, forming shoulders *e e*, arranged, respectively, to come in contact with the inner faces of the channels A A', adjacent thereto, opposite the lower flange of such channels, and the horizontal faces *e' e'*, coming in contact with a corresponding face in the hole through the web of the channels, respectively.

F F are rollers in the hole in hub *d*², extending around the axle E. (See Fig. 4.)

Wheel D has the flanged rim *d*, web *d'*, and hub *d*².

G G are washers, which are preferably rotatably mounted on the axle E at the ends of the hub *d*² of wheel D. Washers G G are designed to keep the rollers F F in place in the hub *d*² and also to prevent friction in the rotation of wheel D and rollers by presenting to the ends of the rollers a rotating face or disk against which such ends shall abut, instead of the web of the channels, respectively.

A further object of the washers is to present a surface or disk which shall extend below the lower flange of the channel-irons, respectively, and adjacent to the ends of the rollers F F F to enable me to set the axle E down, as hereinbefore stated, in the channels A A' and so obtain a bunk-car whereof the wheels are of the largest possible diameter as compared with the depth of the channels used, it

being considered essential that the flange of the wheel D shall not come above the upper edge or top of the channel, such upper edge or top of the channel forming the top of the bunk-car.

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

1. A bunk-car consisting of channel-irons arranged as right and left, combined with spreaders extending between the channel-irons and holding them respectively in place such spreaders having peripheral edges against which the channel-irons are respectively forced by a bolt extending centrally through the spreader, and flanged wheels rotatably mounted between the channel-irons, such wheels consisting of a non-rotatable axle rigidly secured between the channel-irons, a flanged wheel, rollers in the hub of the wheel and around the axle, and washers rotatably mounted on the axle at the ends of the hubs; substantially as described.

2. A bunk-car consisting of channel-irons arranged as right and left, spreaders extending between the channel-irons and holding them rigidly in place, axles having shoulders on the ends thereof extending between the channel-irons and held rigidly in place, a flanged wheel around the axle, rollers in the hub of the wheel and around such axle, and washers mounted on the axle against which the ends of the rollers abut; substantially as described.

HORACE J. MORTON.

In presence of—

FLORA L. BROWN,
JOHN FOLEY.