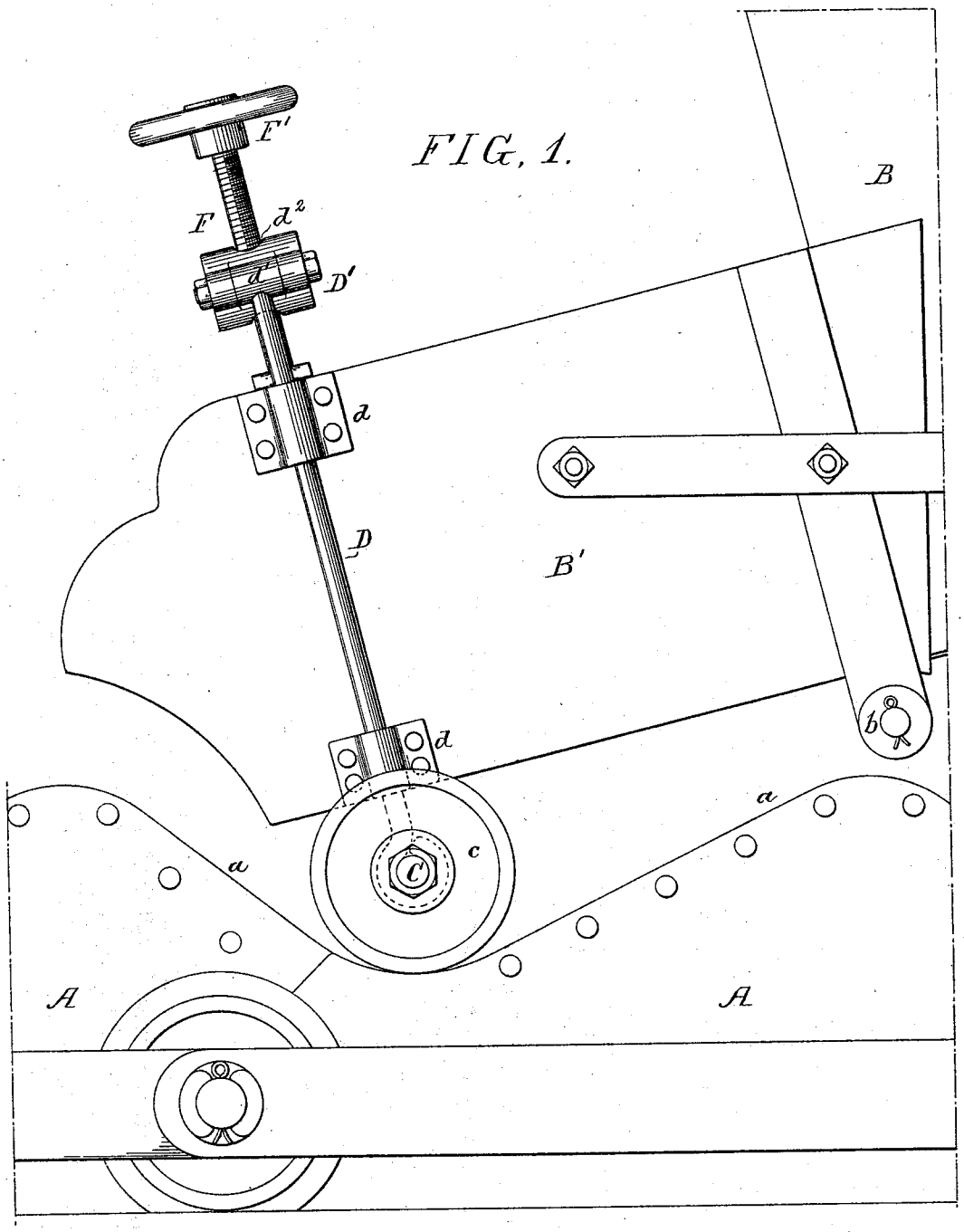
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K. DODGE.

ADJUSTING MECHANISM FOR FEED CHUTES FOR CONVEYERS.

No. 588,901. Patented Aug. 24, 1897.

FIG. 1.



Witnesses:
Hamilton D. Turner
Wm. A. Baw.

Inventor
Kern Dodge
by his Attorneys,
Howson & Howson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

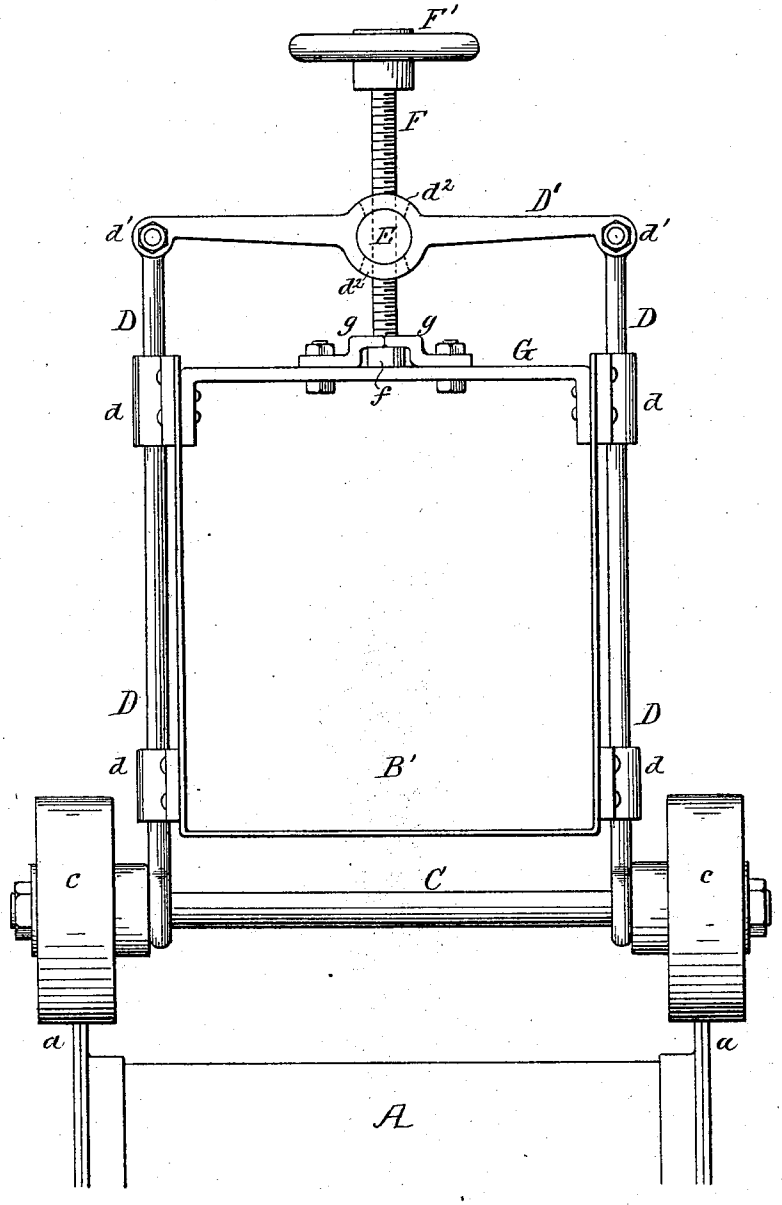
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K. DODGE.

ADJUSTING MECHANISM FOR FEED CHUTES FOR CONVEYERS.

No. 588,901. Patented Aug. 24, 1897.

FIG. 2.



Witnesses:
Hamilton D. Turner
Wm. A. Baw.

Inventor:
Kern Dodge
by his Attorneys,
Howson & Howson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

KERN DODGE, OF PHILADELPHIA, PENNSYLVANIA.

ADJUSTING MECHANISM FOR FEED-CHUTES FOR CONVEYERS.

SPECIFICATION forming part of Letters Patent No. 588,901, dated August 24, 1897.

Application filed May 24, 1897. Serial No. 637,925. (No model.)

To all whom it may concern:

Be it known that I, KERN DODGE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Adjusting Mechanism for Feed-Chutes for Conveyers, of which the following is a specification.

My invention relates to mechanism for adjusting the bearing wheels or shoes of the pivoted portion of a chute for charging conveyers with material, so that the flow of the material can be regulated.

The object of my invention is to so construct the mechanism that the parts can be readily adjusted and that the bearing-wheels will accommodate themselves to the inequalities of the buckets, yet be under complete control of the operator at all times, as fully described hereinafter.

In the accompanying drawings, Figure 1 is a side view of a pivoted section of a chute, illustrating my invention; and Fig. 2 is a front view.

A is a driven bucket conveyer, which in the present instance is formed of an endless chain having a series of buckets pivoted thereto, and the edges *a* of the buckets form the actuating-cams for raising and lowering the pivoted section B′ of a chute B. This section B′ is pivoted at *b* to the chute proper, B.

On each side of the section B′ is a vertically-adjustable rod or bar D, adapted to bearings or slideways *d d* on the pivoted section. These rods carry at their lower ends the shaft C, on which are loosely mounted the wheels or rotating shoes *c*, which rest upon the cam-shaped edges of the buckets of the conveyer. The faces of these wheels are broad, so as to allow for any irregularity in the conveyer.

The rods D are pivotally connected at *d′* to a cross-head D′, and this cross-head encircles a cylindrical nut E, through which passes an adjusting-screw F. The screw has a head *f* at its lower end and a hand-wheel or handle F′ at the upper end. In the present instance the head *f* rests upon a cross-bar G, secured to the pivoted section B of the chute, and is held in place by two lugs *g*, which are attached to the bar and which extend over the head of the screw.

The cross-head D′ is slotted at d^2, so as to allow it to freely swing on the cylindrical nut in order that the shaft C and its wheels will accommodate themselves to the irregularities of the buckets. As it will be understood that it is essential in this class of mechanism to allow for unevenness and wear and in the operation of the conveyers, so it will be seen that the shaft and its wheels can be adjusted toward and from the chute by simply turning the hand-wheel in one direction or the other and that the mechanism will accommodate itself to the buckets, no matter in what position they may be in.

In charging continuously-moving bucket conveyers with such material as coal it is desirable that the buckets should be evenly loaded, and one way to accomplish this in a satisfactory manner is to pivot the outer section of the chute and to operate this pivoted section so that it will be lifted to cut off the flow of material during a portion of the time the conveyer is passing under the chute and then allow it to fall to such a position that the material will flow from the chute into a bucket. The moment the chute is raised again the flow will cease, so that the charging of the buckets is intermittent, but this intermittent charging does not interfere with the continuous movement of the bucket conveyer.

It will be understood that my invention may be used in connection with other types of conveyers than bucket conveyers of the form shown without departing from my invention and that it can be used to charge conveyers with any material whose flow will be checked by the tilting of the chute.

In some instances the construction of the chute may be modified, the pivot may be set farther back or located differently, and the sides of the chute may be dispensed with in some instances without departing from my invention, which relates to the special mechanism for the adjustment of the rollers or shoes which are carried by the chute.

I do not claim, broadly, means for adjusting the bearing devices of the chute, as this is the invention of James M. Dodge and is embodied in his application for Letters Patent of the United States, Serial No. 629,413, filed March 26, 1897.

I claim as my invention—

1. The combination of a conveyer, an ad-

justable chute therefor, a shaft carrying bearing devices, with a screw for adjusting the shaft in respect to the chute, and means connecting the shaft with the screw on each side of the chute, substantially as described.

2. The combination of a conveyer, a chute, a shaft, wheels thereon, a cross-head and rods connected thereto carrying the shaft, with means for adjusting the cross-head, substantially as described.

3. The combination of a conveyer, a chute, two rods carried by the chute, a shaft adapted to a bearing in the lower end of each rod, bearing devices on the shaft adapted to rest upon the edges of the buckets of the conveyer, a cross-head coupled to the two rods, a cylindrical nut mounted in the cross-head, and a screw adapted to pass through the nut so that on turning the screw the nut and its connected mechanism will be raised or lowered, substantially as described.

4. The combination of a bucket conveyer having cam-shaped edges, a pivoted chute, rods on each side of the chute, a cross-head pivoted to the rods and having a socket, a cylindrical nut adapted to the socket so that the cross-head will swing thereon, an adjusting-screw adapted to pass through slots in the cross-head, and through the nut, a cross-bar on the chute to which the shaft is held, a shaft carried by the lower end of each rod, wheels on said shaft which rest upon the edges of the conveyer-bucket, substantially as described.

5. The combination of a conveyer, a pivoted shaft, wheels thereon, a chute, a cross-head pivoted to the chute, rods connecting the cross-head with the shaft at each side of the chute, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

KERN DODGE.

Witnesses:
WILL. A. BARR,
JOS. H. KLEIN.