D. K. ALLISON.

VANNER.

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945,300.

Patented Jan. 4, 1910.

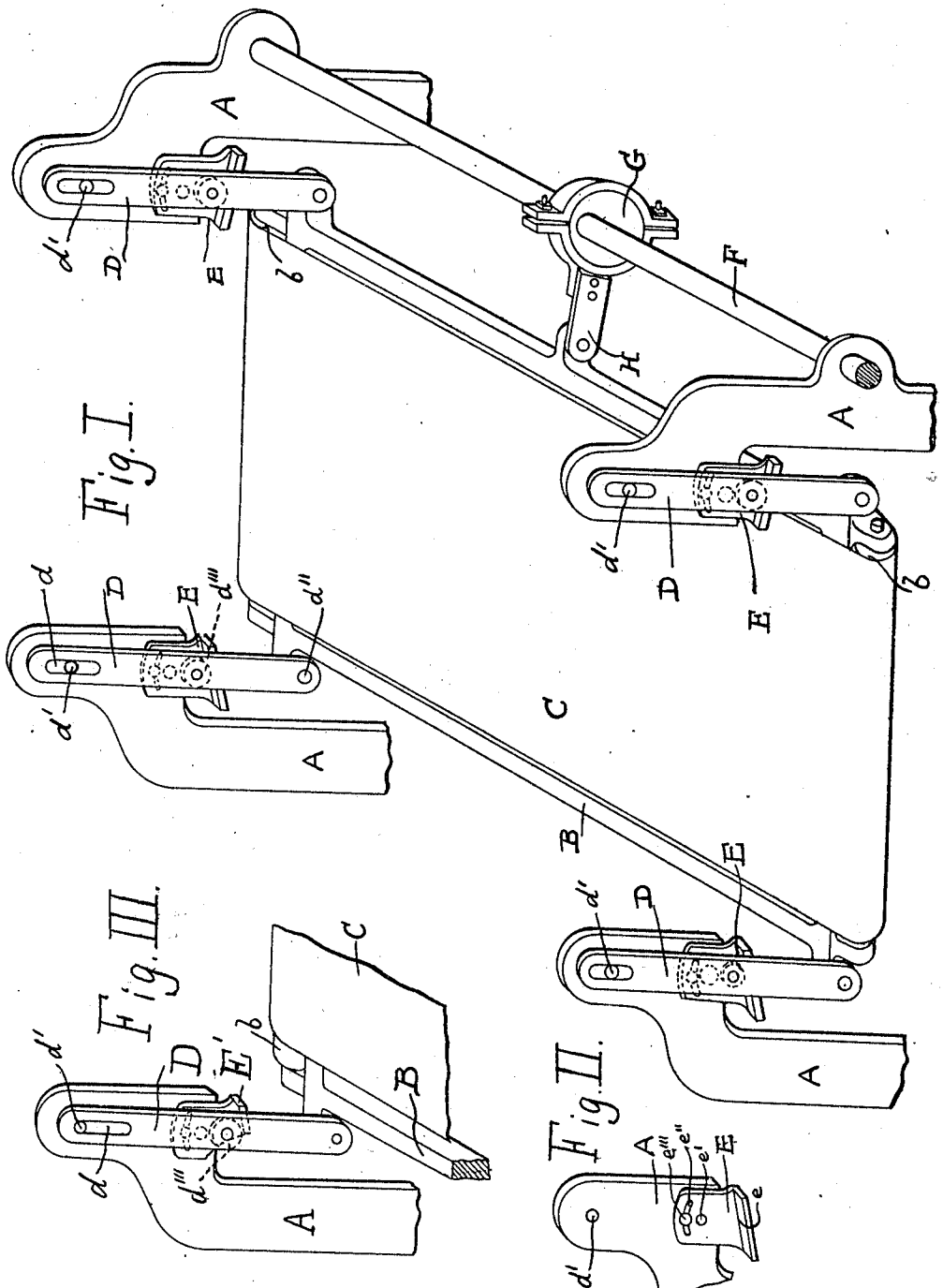

Fig. I.

Fig. III.

Fig. II.

WITNESSES:

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VANNER.

945,300. Specification of Letters Patent. Patented Jan. 4, 1910.

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To all whom it may concern:

Be it known that I, DANIEL K. ALLISON, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a certain new and useful Vanner, of which the following is a specification.

This invention relates to vanners and comprises generally a novel supporting means for the ore separating bed.

In the accompanying drawings which form a part of this specification and in which the same reference characters are applied to the same elements in each of the several figures of the drawings,—Figure 1 is a fragmentary perspective of a vanner embodying my invention. Fig. 2 is a perspective of a detail. Fig. 3 is a perspective of a modification.

This invention relates specifically to that type of vanners in which an ore separating bed is given a swinging movement, and the purpose of this invention is to provide a novel swinging movement for said bed.

In the accompanying drawings I have shown this invention applied to an ordinary form of vanner in which an endless belt is supported upon a frame in such a way that it is adapted to be given a swinging movement. As this type of vanner is an ordinary one and well known to those versed in the art in which it is used, it is considered necessary to show only so much of the general structure thereof as will clearly disclose the application of this invention thereto.

In the drawings, A designates standards; D links supported from said standards; B a frame carrying rollers *b;* and C a belt supported by said frame upon said rollers, said frame being supported by the links D.

Supported by the standards at the right hand side of the machine, as shown, is a shaft F provided with an eccentric G through which motion is imparted to the frame B by the eccentric straps and link H.

Each of the links D is provided with a slot *d* at one end thereof and is pivoted to the frame B by the pin *d''* and is further provided with the antifriction roller *d'''*. Each of the standards A is provided with a track plate E. This track plate is provided with a track *e* upon which said antifriction roller is adapted to roll and is secured to the standard A by means of the bolts *e'*, *e'''*. The track plate is provided with an elongated slot *e''* through which the bolt *e'''* passes, and by this construction the inclination of the track *e* can be varied. Each of the standards A is provided with a bolt *d'* which is adapted to be received within the elongated slot *d* of the link D.

The operation of this apparatus is as follows: Upon a swinging motion being given to the frame B because of the revolution of the eccentric G, the antifriction rollers *d'''* which support the links D roll up and down the tracks *e*, while the upper ends of the links D are restricted in their movements by the pins *d'* with the result that the motion of the ore-carrying belt is changed from a simple swinging movement to a compound movement. By varying the inclination of the track, various movements may be imparted to the frame B so that the motion which is imparted to the vanner may be adapted to various qualities of ores.

In Fig. 3 is shown a modification of the apparatus as shown by Figs. 1 and 2; said modification consisting in having the track plate E' so constructed and arranged that the antifriction roller *d'''* will roll upon the track *e* during only a part of the swinging movement of the link D, the rest of the movement of said link taking place about the bolt *d'* as a center.

What I claim is:—

1. The combination with a separating bed adapted to be oscillated, of a swinging supporting link pivoted to said bed, a track upon which said link continuously travels, and a standard supporting said track, said link and said support having single pin and slot engagement with each other.

2. The combination with a separating bed adapted to be oscillated of a link pivotally supporting said bed, a stationary part, a track associated with said stationary part and upon which said link is adapted to continuously travel and a single pin and slot means for engagement of said link with said stationary part.

3. The combination with a separating bed adapted to be oscillated sidewise of a plurality of links supporting said bed, a plurality of tracks, one for each of said links, antifriction rollers, one secured to each of said links and adapted to travel upon the track provided therefor, each of said links being

pivoted to said separating bed at one end and provided with an elongated slot at its other end, standards to which said tracks are secured, pins carried by said standards and engaged with said links within said elongated slots, and means for oscillating said table.

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

DANIEL K. ALLISON.

Witnesses:
FRANK E. DENNETT,
ELLA BRICKELL.