Mar. 6, 1923.

1,447,507.

G. BECKER.

CONVEYER TROUGH.

FILED FEB. 5, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

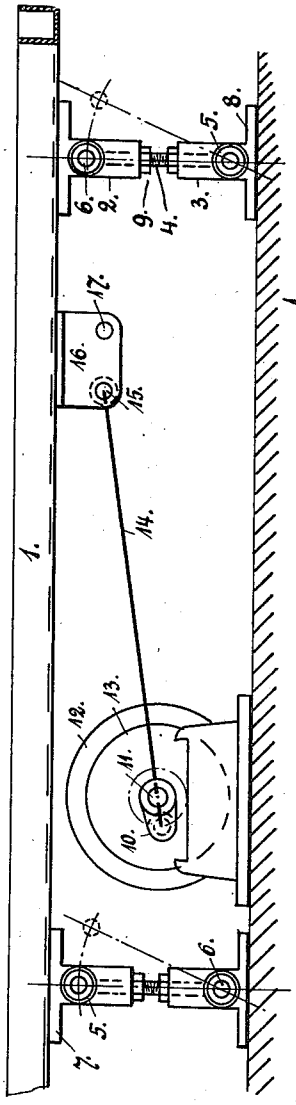
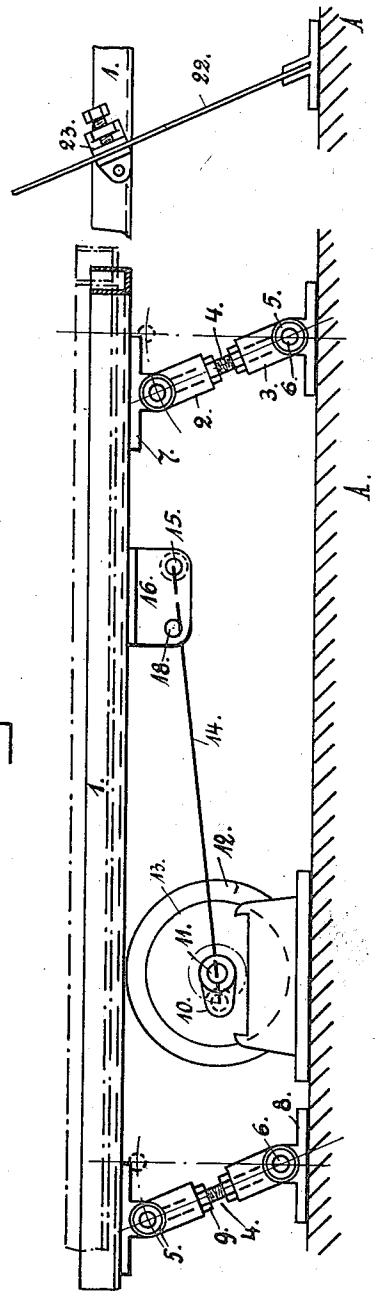


Fig. 2.



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Inventor
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2 SHEETS—SHEET 2.

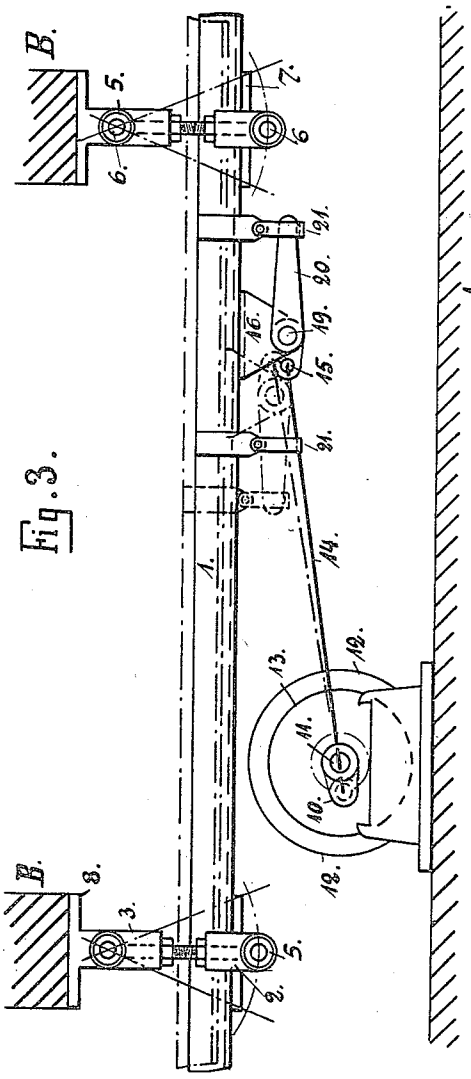


Fig. 3.

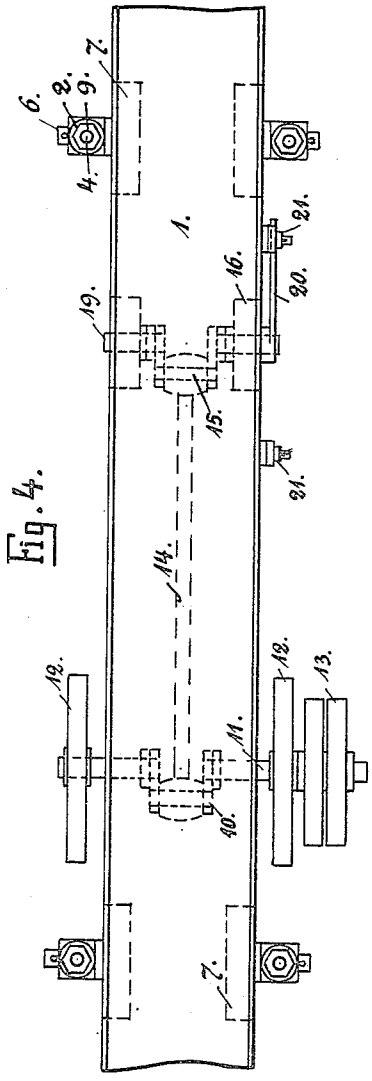


Fig. 4.

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Patented Mar. 6, 1923. 1,447,507

UNITED STATES PATENT OFFICE.

GEORG BECKER, OF MAGDEBURG, GERMANY.

CONVEYER TROUGH.

Application filed February 5, 1920. Serial No. 356,571.

To all whom it may concern:

Be it known that I, GEORG BECKER, a citizen of the German Republic, residing at Magdeburg, Germany, have invented certain new and useful Improvements in Conveyer Troughs, of which the following is a specification.

This invention relates to conveyer-troughs of the type in which the conveyer trough is either suspended or supported by springs.

The invention has for its object to improve the construction of the conveyer-trough in such a manner that the efficiency of the trough can be increased or reduced according to requirement and that the device can be easily adjusted so as to feed in any required direction.

With these objects in view the invention consists in the novel combination and construction of parts as hereinafter described and shown and specifically claimed in the appending claims:

In the accompanying drawings the invention is shown by way of example.

Fig. 1 is a side elevation representing a supported conveyer-trough, adjusted to convey the goods to the left hand side;

Fig. 2 is a similar view as Fig. 1 representing the conveyer-trough adjusted for feeding to the right hand side;

Fig. 3 is a side elevation of a suspended conveyer-trough with the reversing gear for forward—or backward—feeding; the position of the parts after reversing of the handle being indicated in dotted lines;

Fig. 4 is a plan view of Fig. 3.

Similar characters of reference indicate similar parts in the different figures.

The conveyer-trough 1 is mounted on oscillating supports which either rest upon a foundation A or are fixed to beams B above the trough. The supports consist of sleeves 2 fixed to the trough 1 and of sleeves 3 fixed upon the foundation A or to the beams B, said sleeves having right- and left-handed threadings respectively. A screw-shaft 4 with right- and left-hand threads is screwed into the said sleeves 2 and 3. Each sleeve has at its free end an eye-bearing 5 in which axles 6 are rotatably mounted said axles being supported in bearings 7 of the trough 1 or of the brackets 8 fixed either upon the foundation A or to the beam B. Counter-nuts 9 serve for preventing the screw-shafts 4 from turning in the sleeves 2, 3. If the sleeves 2, 3 are moved away from one another in consequence of the screw-shafts 4 being turned, the conveyer-trough feeds quicker and if the said sleeves are moved towards one another the trough feeds slower so that the quantity of the goods fed by the conveyer can be exactly regulated at will.

The conveyer-trough is operated in the well known manner through the intermediary of a push rod 14 from a crank 10 keyed upon shaft 11 which carries also a fly wheel 12 and a belt disc 13. The push rod 14 acts upon a pin 15 mounted in a hanger-bracket 16 of the trough 1. The bracket 16 has two holes 17 and 18 designed to receive said pin 15 so that the reciprocating movement of the trough is increased or decreased according to whether the pin 16 is inserted in hole 17 or in hole 18, the oscillating supports being inclined either to the right or to the left of the vertical through the supporting point of the supports, so that the trough feeds either forwards or backwards.

If the direction in which the trough feeds has to be changed very frequently it is preferable to use the construction shown in Figs. 3 and 4. According to Figs. 3 and 4 the pin 15 of the push rod 14 is eccentrically connected with a shaft 19, mounted in the bracket 16. This shaft 19 can be turned through 180° from outside the trough by means of a hand lever 20 so that the trough 1 can also be pushed forward or backward in order to vary the inclined position of the supports, in a manner similar to that which has been explained with reference to Figs. 1 and 2.

The hand lever 20 is secured in its position by a buckle 21 to be placed over the end of the hand lever and fixed by the insertion of a pin.

I know that there have become known previously to my invention conveyer troughs which are supported by oscillating supports and which are driven by a push-rod which—on the one hand—is connected with a pin of the trough and—on the other hand—with a rotating crank; I do not claim as my invention this combination in general, but

I claim:

1. An improved conveyer trough comprising in combination with a trough proper, with oscillating supports hingedly connected with the trough and with a foundation and with a mechanism for communicating a reciprocating movement to said trough, a bracket downwardly projecting from the

lower surface of the trough, means for connecting said mechanism for communicating a reciprocating movement to said trough with said bracket at will near the front edge or near the rear edge of said bracket to vary the amplitude of the stroke of the trough, and means for adjusting the height of said oscillating supports.

2. An improved conveyer trough comprising in combination with a trough proper, with oscillating supports hingedly connected with the trough and with a foundation and with a mechanism for communicating a reciprocating movement to said trough, a bracket downwardly projecting from the lower surface of the trough having a hole near the front edge and a hole near the rear edge, a pin at the end of said mechanism for communicating a reciprocating movement to said trough to be inserted at will into the one or the other of the holes of said bracket to vary the amplitude of the stroke of the trough, and means for adjusting the height of said oscillating supports.

3. An improved conveyer trough comprising in combination with a trough proper, with a foundation and with a mechanism for communicating a reciprocating movement to said trough, two pairs of oscillating supports hingedly connected with said trough and with said foundation, each support consisting of a threaded sleeve articulated to the lower surface of the trough and of a sleeve articulated to the foundation said sleeves of each pair having internal threads directed in opposite directions, a screw shaft for each oscillating support having right-hand threads at one end and left-hand threads at the other end screwed into the two sleeves of one support, means for locking said screw shaft of each support in its adjusted position, a bracket downwardly projecting from the lower surface of the trough having a hole near the front edge and a hole near the rear edge, a pin at the end of said mechanism for communicating a reciprocating movement to said trough to be inserted at will into the one or the other of the holes of said bracket to vary the amplitude of the stroke of the trough.

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

GEORG BECKER.

Witnesses:

RUDOLF RENNERT,

O. W. KINTUN.