

N. J. BILLSTROM.
FEEDER FOR JOINTERS AND SURFACE PLANERS.
APPLICATION FILED AUG. 8, 1908.

928,930.

Patented July 27, 1909.

2 SHEETS—SHEET 1.

Fig. 1

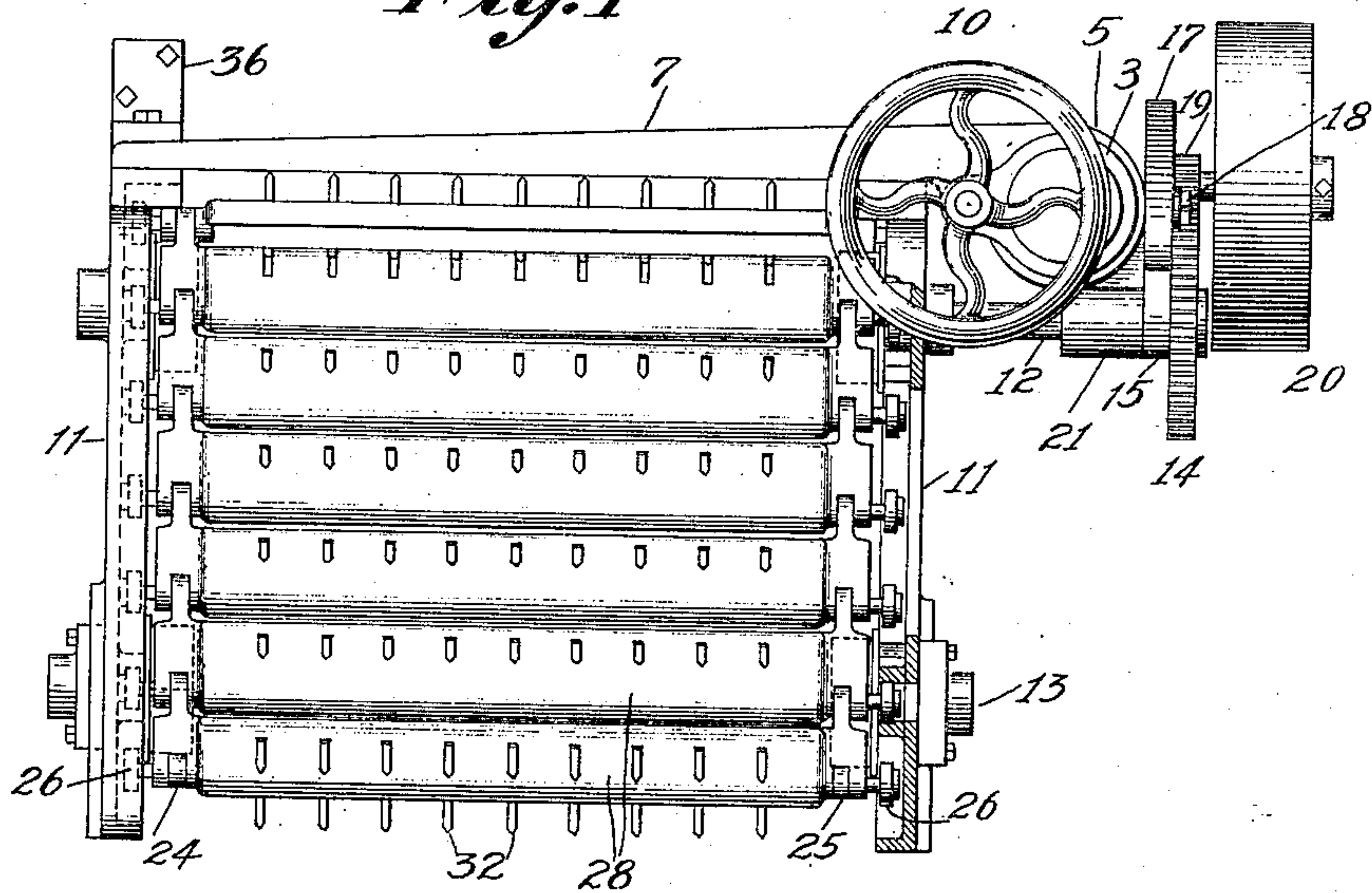
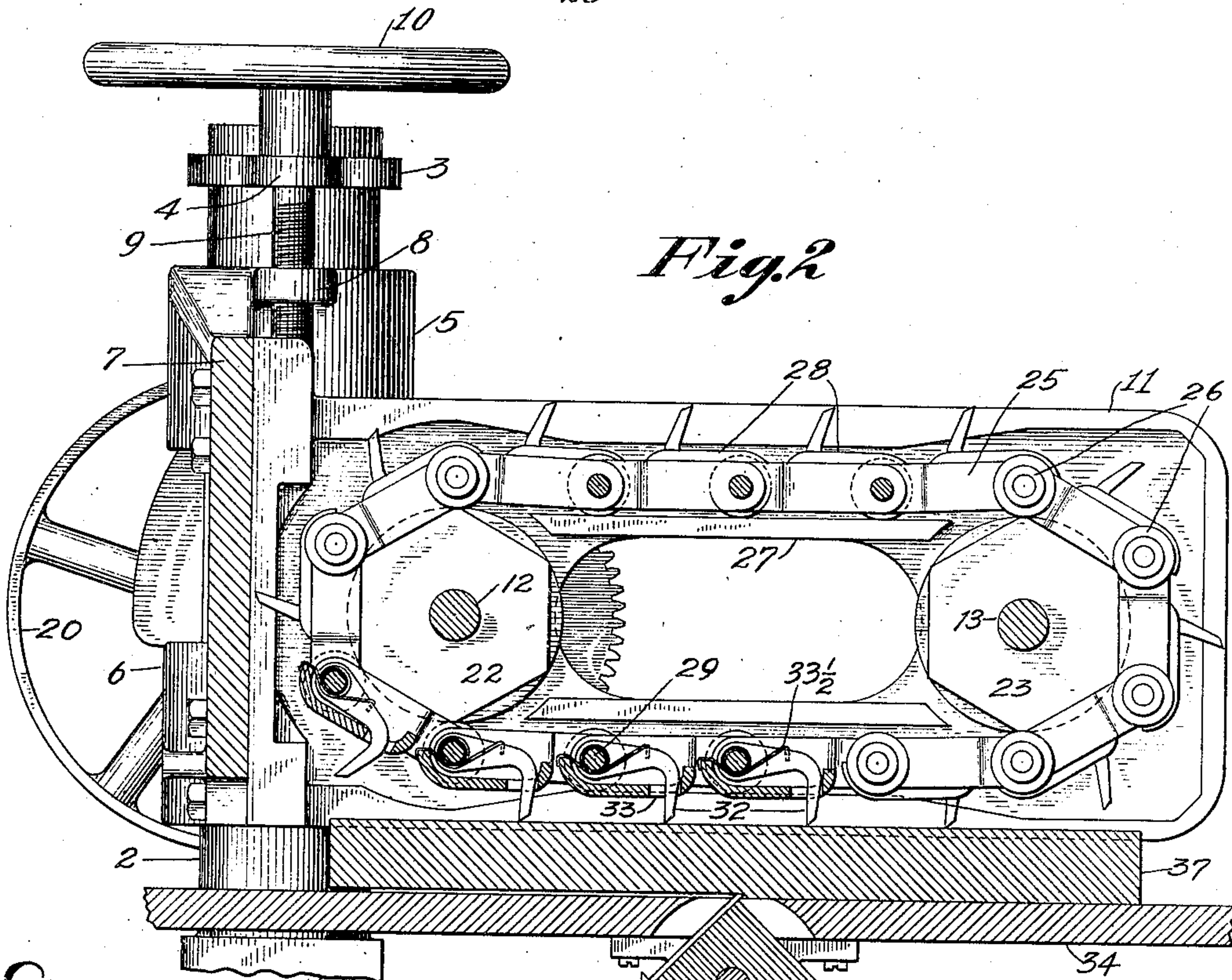


Fig. 2



Witnesses
C. E. Bridge
E. Behl.

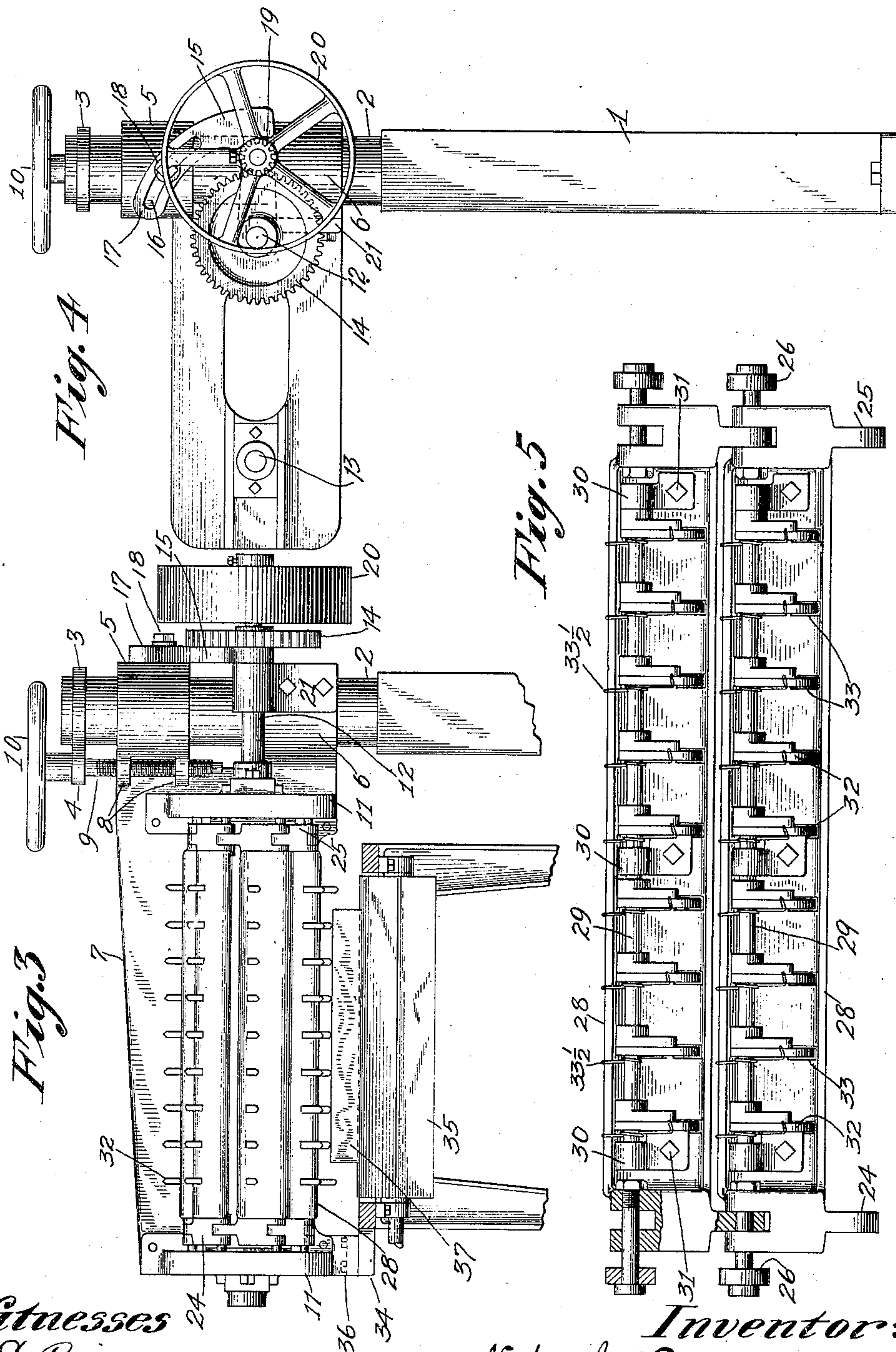
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UNITED STATES PATENT OFFICE.

NELS J. BILLSTROM, OF ROCKFORD, ILLINOIS.

FEEDER FOR JOINTERS AND SURFACE-PLANERS.

No. 928,930.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed August 8, 1908. Serial No. 447,640.

To all whom it may concern:

Be it known that I, NELS J. BILLSTROM, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Feeders for Jointers and Surface-Planers, of which the following is a specification.

The object of this invention is to construct a feeder for jointers and surface planers, comprising a plurality of spring actuated fingers which contact with the material to be operated upon.

In the accompanying drawings, Figure 1 is a plan view of my improved feeder. Fig. 2 is a vertical lengthwise section. Fig. 3 is an end elevation as seen from the feed end. Fig. 4 is a side elevation. Fig. 5 is a plan view of two of the carriers detached from the frame of the feeder.

My improved feeder is applicable to different makes of jointers and surface planers and is adapted to overhang the upper surface of the jointer.

A standard 1 may be secured to the floor or other suitable support and has its upper section 2 in cylindrical form. A collar 3 supported by the upper end of the standard is adapted to turn axially around the standard and has a perforated ear 4.

Around the cylindrical portion 2 of the standard 1 is located a collar comprising the two branches 5 and 6, which are formed integral with the end 7 of the feeder frame, and from the branch 5 extend two ears 8, each provided with a screw-threaded opening. A screw 9 is turned in connection with the ears 8, and is rotated by the hand wheel 10. By means of this hand wheel 10 and screw 9, the end 7 of the main frame can be raised and lowered and held when adjusted.

To the end 7 of the main frame are secured two side plates 11 which support a driving shaft 12, and a driven shaft 13. The driving shaft has a spur gear 14 secured to it, and a yoke 15 has a pivotal connection with this shaft and is located inside the spur gear 14. This yoke has a curved slot 16 in its branch 17, and through this slot is located a screw 18 which is screw-threaded into the branch 5. The yoke 15 supports a spur pinion 19 which meshes with the spur gear 14. A pulley 20 has a connection with the spur pinion 19, and a belt will rotate this pulley and through the

gear will rotate the driving shaft 12. A bracket 21 connected to the lower branch serves to support the projecting end of the driving shaft 12. As the pulley 20 is intended to have a belt connection with a motive power its position cannot be changed as the main frame is raised and lowered. This is accomplished by supporting the pulley 20 on the yoke 15 and by the adjustment through the slot 16.

Between the side plates 11 of the main frame and secured to the driving shaft 12 are located heads 22 of hexagonal form, and to the driven shaft 13 are secured heads 23 of hexagonal form. The heads 22 of the driving shaft 12 and the heads 23 of the driven shaft 13 are connected by linked belts 24 and 25, and at the pivotal connections between the links are located rollers 26 which at certain portions of their movements travel on tracks 27 extending from the inner faces of the sides 11 of the main frame.

Two oppositely disposed links of the linked belts are connected by a plate 28 having its edges raised. Each plate 28 supports a rod 29 which is located in the lengthwise direction of the plate and near one edge. This rod 29 is held in position by the bearings 30 which are secured to the plate by the screws 31. This rod 29 supports a plurality of teeth 32 in a pivotal manner. The teeth are curved and extend through openings 33 in the plate, and are held yieldingly in this projected position by the springs 33 $\frac{1}{2}$. The openings 33 in the plates serve to hold the fingers against lateral movement.

The main frame of the feeder is located over the table 34 of a jointer and surface planer having a rapidly rotating cutter 35. In order to hold the main frame of the feeder in proper relation with the table of the jointer and surface planer, a bracket 36 is connected to the table and has an adjustable connection with the free end of the front arm of the main frame in order to permit the bodily vertical adjustment of the main frame. The main frame is adjusted vertically to meet the varying thicknesses of material operated upon when the range of material is not within the movements of the spring actuated fingers 32. The rotation of the driving shaft 12 will cause the linked chain to move, which will cause the fingers 32 to contact with the material 37 and move the material over the

cutter 35. By detaching the bracket 36 from the table 34 the feeder may be swung free of the table.

By this construction, the material is fed
5 over the revolving cutter of the jointer and surface planer without danger to the hands of the operator.

I claim as my invention.

1. A feeder for jointers and surface planers
10 comprising a frame, two shafts supported within the frame, two linked belts connecting the shafts, carriers carried by the belts, and each formed with a plurality of openings, brackets connected to each carrier, a rod for
15 each carrier supported by the brackets thereof, and spring actuated teeth supported by the rod and projecting through the openings in the carriers.

2. A feeder for jointers and surface planers
20 comprising a frame, two shafts supported within the frame, two linked belts connecting the shafts, carriers connected to the belts by bolts acting as pivots between the links of the chains, a roller supported by each bolt,

track-ways for the rollers, and spring actuated
25 teeth supported by each carrier and projecting through openings therein.

3. A feeder for jointers and surface planers comprising a frame, two shafts supported within the frame, two linked belts connecting
30 the shafts, carriers carried by the belts, and each formed with a plurality of openings, brackets connected to each carrier, a rod for each carrier supported by the brackets thereof, spring actuated teeth supported by the
35 rod and projecting through the openings in the carriers, a standard supporting the feeder and capable of swinging over the jointer or surface planer, and means for raising the
40 feeder bodily.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

NELS J. BILLSTROM.

Witnesses:

A. O. BEHEL,
E. D. E. N. BEHEL.