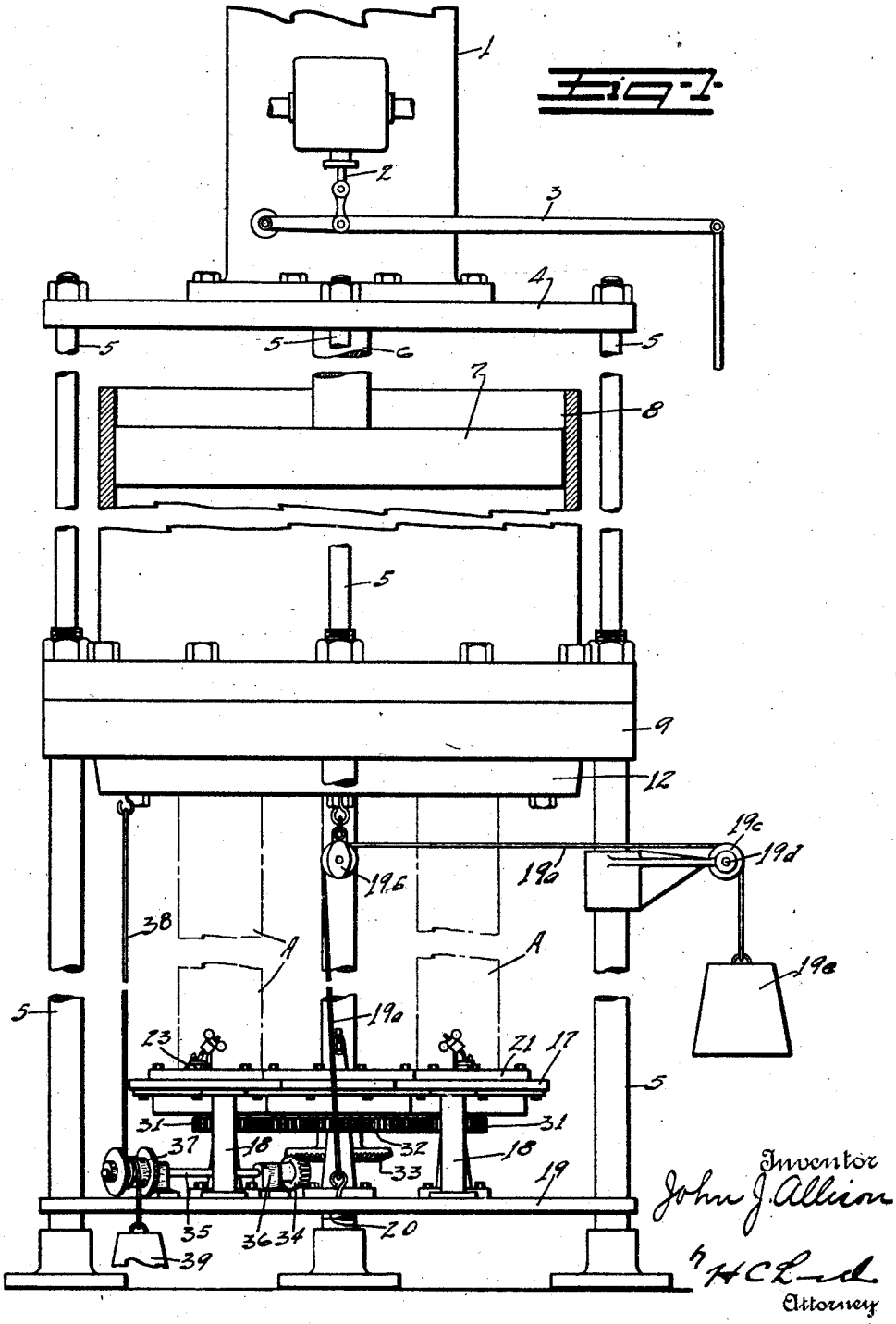
April 21, 1925. 1,534,826

J. J. ALLISON

CONDUIT MAKING MACHINE

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J. J. ALLISON

CONDUIT MAKING MACHINE

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Fig. 2.

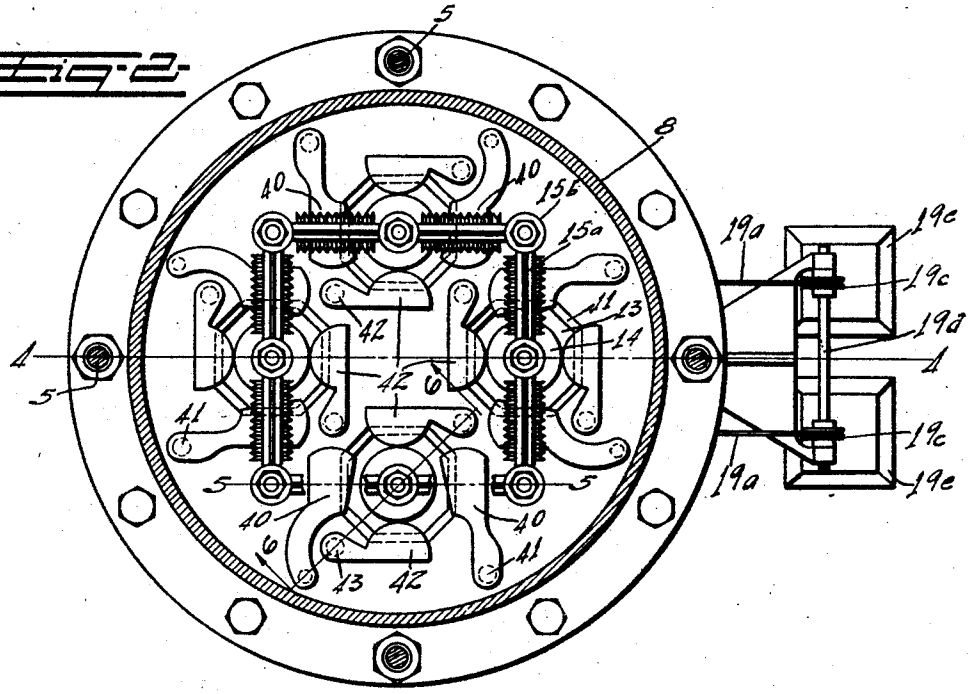
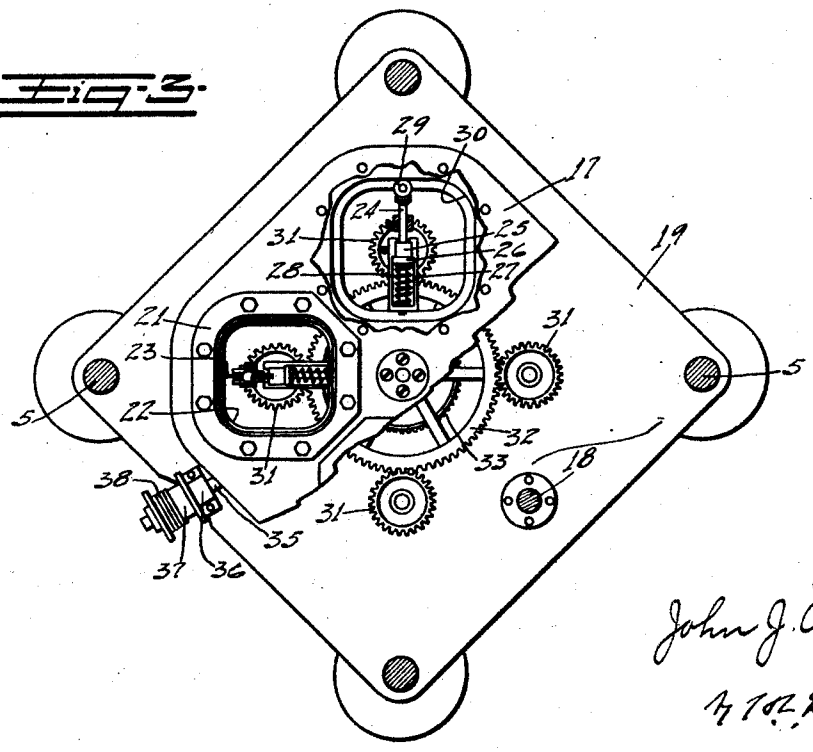


Fig. 3.



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Fig-4-

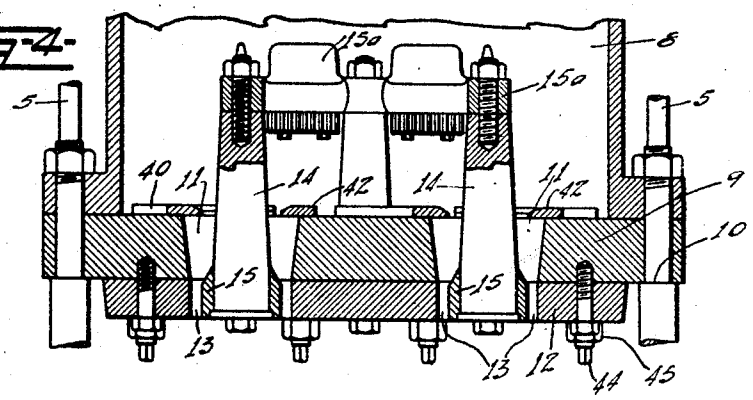


Fig-5-

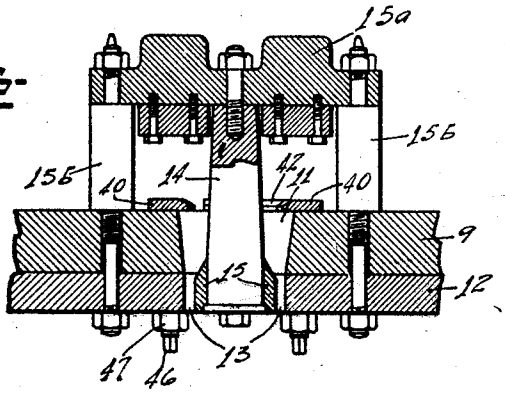
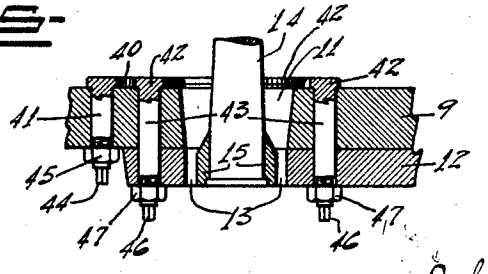


Fig-6-



Inventor

John J Allison

by W. Z. Land

Attorney

Patented Apr. 21, 1925. 1,534,826

UNITED STATES PATENT OFFICE.

JOHN J. ALLISON, OF SMETHPORT, PENNSYLVANIA.

CONDUIT-MAKING MACHINE.

Application filed March 31, 1923. Serial No. 629,065.

To all whom it may concern:

Be it known that I, JOHN J. ALLISON, a citizen of the United States, residing at Smethport, in the county of McKean and State of Pennsylvania, have invented new and useful Improvements in Conduit-Making Machines, of which the following is a specification.

The invention is designed to improve the action of conduit making machines so that the material as it is extruded from the dies will run true. The difference in the consistency of the material and the deflectors in the chamber itself all contribute to varying the flow of the material so that without adjustment there is difficulty in keeping the conduit in proper alinement. Heretofore this has been accomplished by adjustable means acting in relation to the die passages but so far as I am aware such adjustment has required the emptying of the mud chamber so as to affect the adjustment. I have devised a means whereby this adjustment can be easily and accurately made from without the chamber so that the adjustment may be made from time to time as required and as the variations in the material indicate as necessary.

The invention is illustrated in the accompanying drawings as follows:—

Fig. 1 shows a side elevation of the machine.

Fig. 2 a plan view of the die plate.

Fig. 3 a plan view of the yielding platform.

Fig. 4 a section on the line 4—4 in Fig. 2.

Fig. 5 a section on the line 5—5 in Fig. 2.

Fig. 6 a section on the line 6—6 in Fig. 2.

1 marks the steam cylinder, 2 the valve controlling the steam cylinder, 3 the operating lever, 4 a head on which the steam cylinder is mounted, 5 posts carrying the head 4, 6 a piston rod extending from the steam cylinder, 7 a plunger on the piston rod, 8 a mud chamber, 9 the die head of the mud chamber, 10 shoulders on the posts 5 on which the head 9 rests, 11 the mud passages, 12 the die plate secured to the head 9 and having the die openings 13 extending from the passages 11, 14 the die cores holding the dies 15, 15^a a frame carrying the die cores 14 the frame having the usual scoring devices, and 15^b posts carrying the frame. These parts are, or may be, of usual construction. A platform 17 is arranged in alinement with the die openings 13 and receives the extruded material in the usual manner. As shown there are four dies and provisions for receiving four tubes with each operation. The platform 17 is mounted on the posts 18 which extend to a head 19 carried by a plunger 20. The head 19 is guided by the posts 5 and is balanced through a cable 19^a extending through the blocks 19^b over the pulleys 19^c on the shaft 19^d to the weights 19^e. It will be noted that the pulleys 19^c at the two sides of the machine are locked on the shaft 19^d so as to tend to keep these parts in parallel.

Guides plates 21 are arranged on the platform 17 in position to receive the ends of the extruded material as indicated by A. The platform has an extension lip 22 extending outwardly from the guide plates 21. With the material received in this socket and in position it is trimmed by a wire cutter 23. This wire cutter is mounted on a sliding bar 24 slidingly mounted in a rotating head 25. The bar has a stop 26 which operates in a guide 27 secured to the head 25. A spring 28 operates against the stop 26 and tends to move the bar radially. The bar has a roller 29 at its outer end and this follows along a track 30 under the influence of the spring, thus giving to the cutter the contour of the track and the track has the contour of the bottom of the conduit. A gear 31 is locked with the head 25 and meshes with a gear 32, it being understood that a plurality of dies are provided in the chamber and these operate on a plurality of seats on the platform and that the gear 32 is centrally located so as to operate all the trimming devices on the platform. A beveled gear 33 is locked with the gear 32 and meshes with a beveled gear 34. The beveled gear 34 is fixed on a shaft 35 and this operates in bearings 36. A spool 37 is fixed on the shaft 35 and a cable 38 is wound around this spool, the upper end being secured to the head 9 and the lower end being provided with a weight 39. It will readily be seen that as the platform is raised and lowered the trimmer is rotated so that on a completion of the extruding action from the chamber the trimming of the form, or end of the blank is completed.

I have shown in a companion application, Serial Number 629,064 the mechanism just

described and so far as anything new contained in said mechanism it is claimed in said companion application.

Deflecting or adjusting blades 40 are arranged at each side of the die passages and deflecting blades 42 are arranged to operate on the die passages at right angles to those covered by the blades 40. The blades 40 are mounted on pins 41 which extend through the head and the plates 42 on pins 43 which also extend through the head and die plate. By swinging these plates 40—42 in and out a greater or less resistance may be interposed to the flow of material to either side of the die and in this way a correcting adjustment can be made so that any tendency of the material to run off a straight line as it is extruded may be avoided. The pin 41 has a squared end 44. A wrench may be placed on this squared end and the adjusting plate swung exactly as desired. The adjustment may be locked by a nut 45 which is screwed on to the lower end of the pin 41 and thus clamps the plate on the bottom of the chamber and locks it against turning. The pins 43 are similarly squared at 46 and are provided with the locking nuts 47 by means of which the plates 42 may be locked in place. With this construction, it will be seen, the adjustment can be made at any time without emptying the mud chamber which is a difficult matter and the adjustment may be made immediately an error appears in the proper extrusion of the material.

What I claim as new is:—

1. In a conduit making machine, the combination of a mud chamber; dies with die passages leading therefrom; an adjusting plate for the die passages said plates being arranged within the passages and varying the opening of the passages; and means operating from without the chamber adjusting the plate.

2. In a conduit making machine, the combination of a mud chamber; dies with die passages leading therefrom; a plurality of adjusting plates for the die passages arranged around the die within the passages and varying the opening of the die passages; and means operative without the chamber for adjusting the plates independently.

3. In a conduit making machine, the combination of a mud chamber; dies with die passages leading therefrom; an adjusting plate for the die passages said plates being arranged within the passages and varying the opening of the die passages; a rotating mounting for the plate having an axis in alinement with the direction of movement of the material through the passages; and means operating from without the chamber adjusting the plate.

4. In a conduit making machine, the combination of a mud chamber; dies with die passages leading therefrom; an adjusting plate for the die passages said plates being arranged within the passages and a rotating mounting for the plate comprising a pin said pin being parallel to the direction of movement of material through the passages extending to without the chamber; and means operating from without the chamber adjusting the plate.

5. In a conduit making machine, the combination of a mud chamber; dies with die passages leading therefrom; a series of plates pivotally mounted and arranged around the die passages said plates being arranged within the passages and varying the opening through the passages; and pins parallel to the direction of movement of material through the passages on which said plates are mounted extending to without the chamber and adapted to be actuated from without the chamber to adjust the plates.

In testimony whereof I have hereunto set my hand.

JOHN J. ALLISON.