

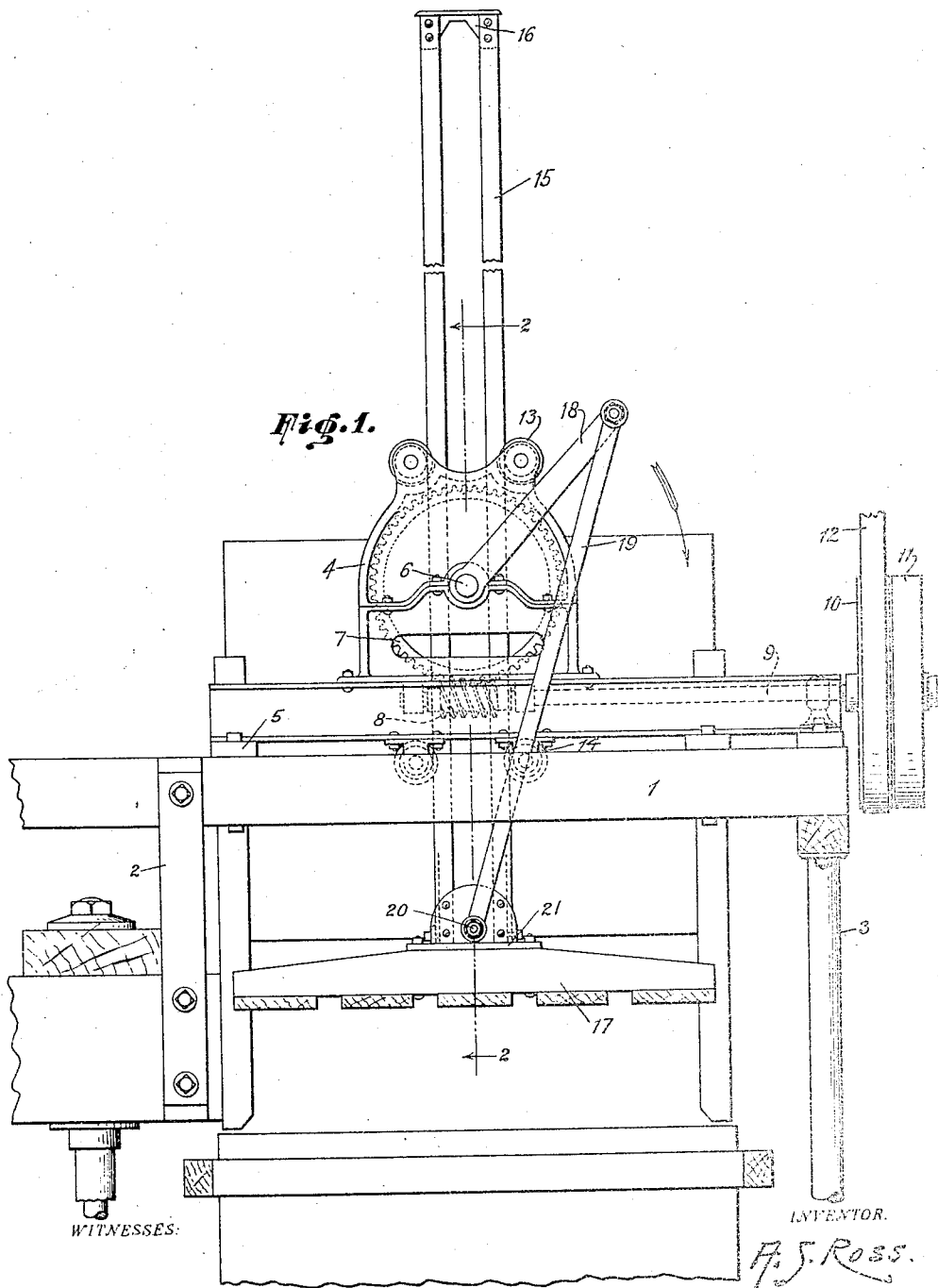
TRAMPER.

APPLICATION FILED JULY 3, 1918.

Patented Mar. 2, 1920.

2 SHEETS—SHEET 1.

1,332,576.



WITNESSES:

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1,332,576.

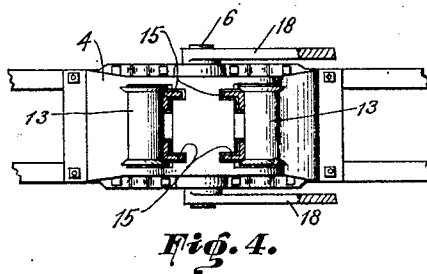
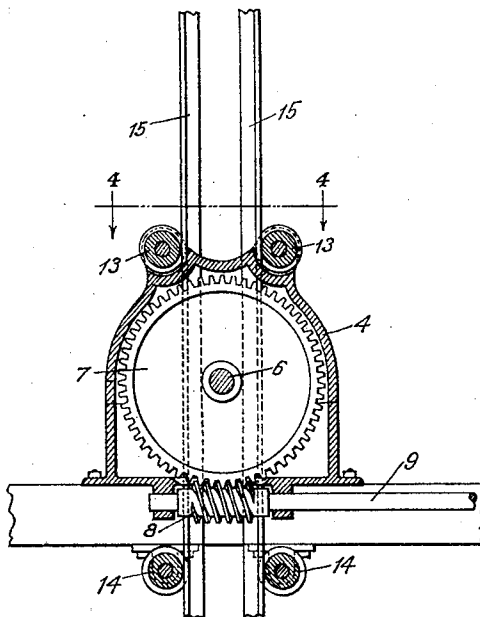
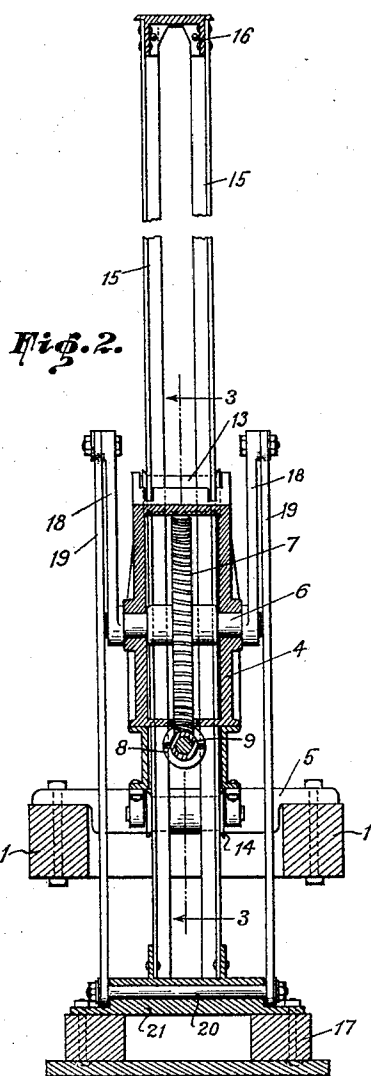
A. S. ROSS.

TRAMPER.

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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TRAMPER.

1,332,576.

Specification of Letters Patent.

Patented Mar. 2, 1920.

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To all whom it may concern:

Be it known that I, ALBERT S. ROSS, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Trampers, of which the following is a specification.

This invention relates to new and useful improvements in trampers.

10 It has been customary in the usual construction of trampers now in common use to include a tripping device which reverses the power as applied to the tramper head in order to obtain reciprocating motion of the same. Such tripping devices are more or less unsatisfactory, dangerous and complicated.

15 It is the aim of this invention to obviate the use of tripping devices or reversing means and to obtain a reciprocating motion of the tramper head from continuously operating instrumentalities which turn in the same direction during the entire operation. It is also sought to produce a tramper which will be simple, efficient, easy of operation and construction and safe for the workman.

20 In carrying out the invention a continuously operating member is provided and equipped with a revolving crank arm to the end of which a link is pivoted. This link has its opposite end pivoted to the tramper head which has a column or shaft sliding vertically through a suitable guide. As the crank arm revolves the link is carried up and down thus imparting reciprocating motion and also applying power or pressure where the same is needed.

25 The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings, in which an example of the invention is illustrated, and wherein—

30 Figure 1 is a side elevation of a tramper constructed in accordance with this invention,

35 Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1,

40 Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 2, and

50 Fig. 4 is a horizontal cross sectional view on the line 4—4 of Fig. 3.

In the drawings the numeral 1 designates the tramper sills which are supported on uprights 2 and 3. A metal housing 4 is provided with a laterally extending base 5 which rests on and is bolted to the sills 1

whereby the housing is disposed longitudinally between the sills. The housing supports a transverse shaft 6 on which a worm gear 7 is fastened in the center, said gear 60 being driven by a worm 8 mounted on a shaft 9 extending longitudinally of the sills and overhanging the same. On the projecting end of the shaft 9 is mounted a fast pulley 10 and a loose pulley 11 driven by 65 the usual belt 12.

At each side of the center of the housing a guide roller 13 is mounted at the top while other guide rollers 14 depend from the base of the housing in vertical alinement with 70 the rollers 13. A column-frame composed of four spaced angle irons 15 has a cap 16 at its upper end and is secured to the usual tramper head 17 at its lower end. The angle irons 15 impart to the column-frame 75 a shape rectangular in cross-section, and these angle irons pass through openings in the casing 4, and engage with the upper and lower rollers 13 and 14, the shaft 6 passing between pairs of the angle irons 80 15. The shaft 6 projects on each side of the housing crank arms 18 fastened thereon. These crank arms are pivoted to the upper ends of links 19 which have their lower ends connected with a rocker bar 20 85 mounted in a keeper 21 extending through the shaft 15 and secured on the head 17. The base 5 is arranged so that the links may depend and swing between the sills 1 and the housing. 90

It is obvious that as the gear 7 is revolved the shaft 6 will be revolved and the crank arms 18 revolved. When the crank arms are directly over the center of the shaft 6 95 the tramper head and shaft will be at the upper limit of its stroke and when the said arms are directly under the center of said shaft the tramper head and shaft 15 will be at the downward limit of their stroke. It will be seen that while the crank arms are 100 passing over the center the tramper head will undergo a pausing period which allows the cotton to be delivered to the press box. As the arms swing downward there will be practically no resistance offered to 105 the tramper head and its travel will be accelerated during the first portion of its downward stroke, but as the resistance offered by the cotton in the press increases, the travel of the tramper head will be re- 110 tardated but pressure will be increased as the arms 18 and links 19 approach a vertical

alinement so that the greatest pressure will be had at the extremity of the downward stroke owing to the toggle joint action.

What I claim is:

5 In apparatus of the character described, a pair of substantially horizontal parallel spaced tramper sills, means for supporting the tramper sills, a pair of substantially horizontal parallel beams arranged near and
10 above the spaced tramper sills, said beams being spaced and disposed inwardly of the tramper sills for a substantial distance for providing longitudinal passages between the beams and the sills, supporting means
15 connecting the ends of the beams and the ends of the sills, a housing arranged upon and supported by said beams and terminating near the outer edges of the beams, said housing being provided in its top and bot-

tom with openings, a transverse horizontal 20 shaft journaled within the housing, a worm wheel carried by the shaft and arranged within the housing, cranks secured to the outer ends of the transverse shaft, links 25 pivotally connected with the cranks and extending downwardly through the longitudinal passages between the beams and sills, a column-frame embodying pairs of bars operating through the openings in said housing, said pairs of bars being arranged upon 30 opposite sides of the transverse shaft, rollers carried by the housing to engage the bars, a tramper head secured to the lower end of the column-frame and the links, and means 35 to drive the worm wheel.

In testimony whereof I affix my signature.

ALBERT S. ROSS.