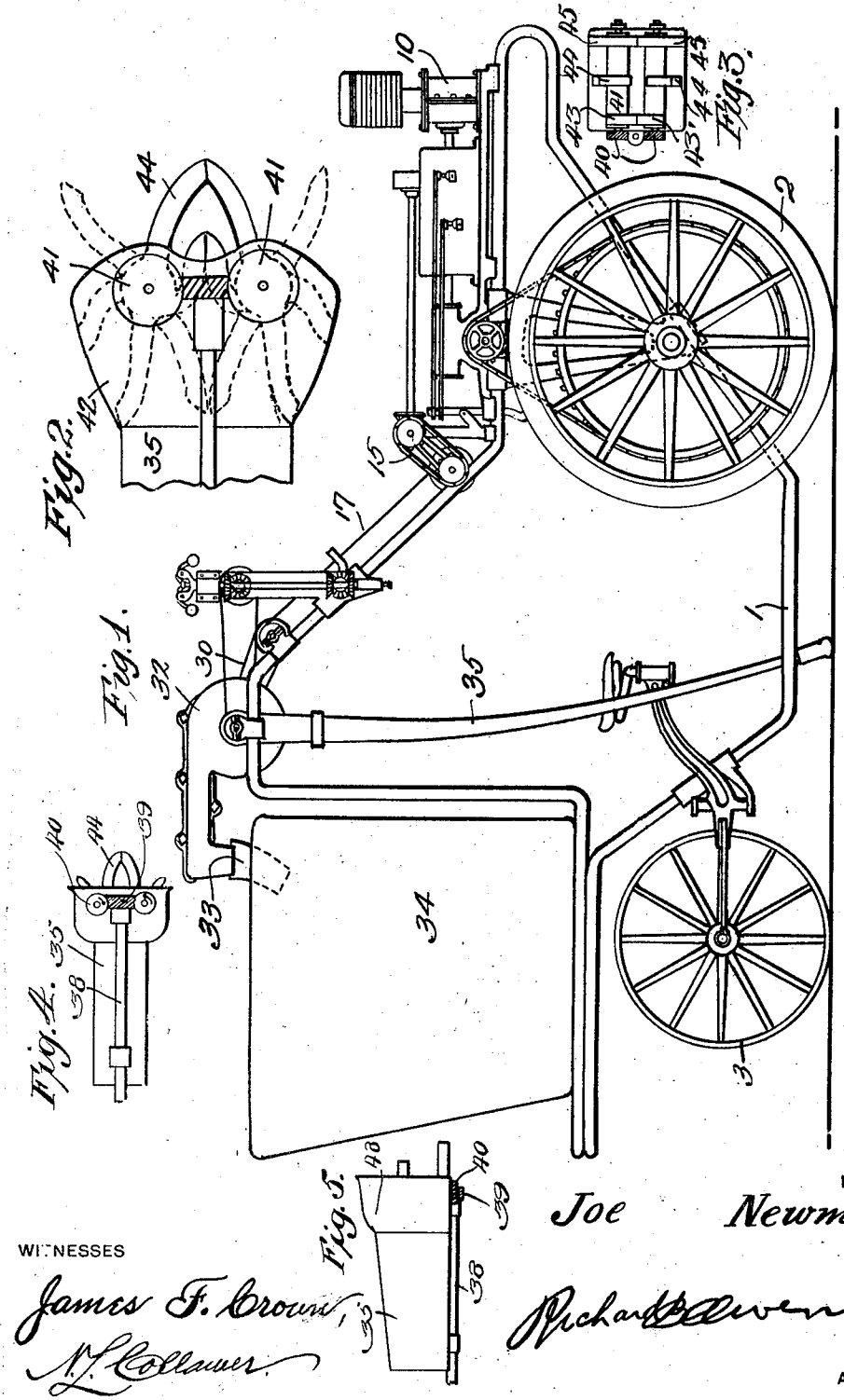
J. NEWMAN.

COTTON HARVESTER.

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1,351,398. Patented Aug. 31, 1920.



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COTTON-HARVESTER.

1,351,398. Specification of Letters Patent. Patented Aug. 31, 1920.

Application filed February 8, 1918. Serial No. 216,043.

To all whom it may concern:

Be it known that I, JOE NEWMAN, 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 Cotton-Harvesters, of which the following is a specification.

This invention relates to cotton harvesters, and more particularly to the picker mechanism thereof; and the object of the picker mechanism is to provide means for picking the cotton and delivering the same to a desired basket on a vehicle.

Other objects and advantages of the invention will be readily understood by reference to the accompanying drawings and the description.

In the accompanying drawings:—

Figure 1 is a side elevation of this machine complete,

Fig. 2 is a plan view showing in dotted lines the various fingers,

Fig. 3 is a front elevation of the pickers on a larger scale,

Fig. 4 is a plan view, and

Fig. 5 is a side elevation of one of the pickers on a large scale.

The main frame 1 is mounted on front and rear wheels 2 and 3. This frame 1 may be of any suitable construction and is provided with an engine 10 which is connected with the fan 32 in any suitable manner so as to operate same. As shown, the shaft of the fan is provided with a pulley over which passes the belt 30 which also passes over a pulley operated by the belt 17. The belt 17 is operated by the mechanism designated at 15 which is connected in any suitable manner to the engine 10.

The casing 32 of the fan is provided with the outlet spout 33 which is directed downwardly into a basket 34. The inlet of the fan is provided with the depending suction tube 35. The pickers at the lower end of the tube 35 are illustrated in detail in Figs. 2 to 5 inclusive. A flexible shaft 38 extends downwardly along the suction tube 35 and is rotated by any suitable means by the engine 10. The shaft is diagrammatically shown in Figs. 4 and 5 as outside the tube 35 but, of course, it will be readily understood that the same may be situated inside the tube if so desired. At its lower end, the flexible shaft 38 carries a worm gear 39 standing between and meshing with a pair of similar gears 40 cast on the extremities of two parallel picker shafts 41 which are rotatably mounted in parallelism with each other within an enlargement or picker head 42 at the lower end of the tube 35; and these shafts rotate toward each other as shown in Fig 4 by the arrows. Each shaft 41 carries a series of fingers numbered in Figs. 3, 43, 44 and 45 on one shaft and 43′, 44′ and 45′ on the other shaft and these fingers are flexible, being preferably of rubber, and disposed directly opposite to each other as shown. When motion is imparted to the picker shaft, same will rotate toward each other and the fingers will come successively in contact with each other, such as seen at the right of Fig. 2. This action grasps the cotton and picks it from the plants, drawing it into the head 42 by the contact of the complementary fingers as is shown by the second full line position in the same view, which continues while they pass between the shafts 41 and as soon as the cotton is released by the fingers, it comes under the influence of the suction within the tube 35 caused by the fan 32, so that the cotton will be drawn through the tube and eventually delivered into the basket 34 into which the spout 33 is directed. By preference, the various pairs of fingers are disposed successively along the two picker shafts 41 so that those numbered 43 in Fig. 6 would come in contact first, those numbered 44 come in contact next, and those numbered 45 would come in contact last; and by preference also, the flexible fingers pass entirely through the picker shafts so that they shall extend to both sides of the same, thereby making contact with each pair twice at each revolution of the shafts.

Having thus described my invention what I claim as new is:—

1. In a cotton picker, the combination with a suction tube having a head at its inlet end, a pair of picker shafts mounted in said head, and means for driving them simultaneously and in opposite directions; and flexible picker fingers carried by said shafts and disposed in pairs whose members are opposite each other, the fingers being arranged successively and progressively along their shafts so that the tips of members of the several pairs will contact one after another

and each finger being longer than the distance between said shafts, for the purpose set forth.

2. In a cotton picker, the combination with a flexible suction tube having an enlarged head at its inlet end, a pair of picker shafts journaled in said head and having worm gears on one end, a worm between and engaging said gears, and a flexible shaft for driving said worm; of a series of rubber picker fingers carried by said shafts, arranged successively and progressively along the same and disposed in pairs whose members are respectively opposite each other and of sufficient length to make contact and be deflected by such contact, for the purpose set forth.

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

JOE NEWMAN.

Witnesses:
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H. W. SAFFARRAUS.