

(No Model.)

T. S. CULBREATH.
THRESHING MACHINE.

No. 606,125.

Patented June 21, 1898.

FIG. 1.

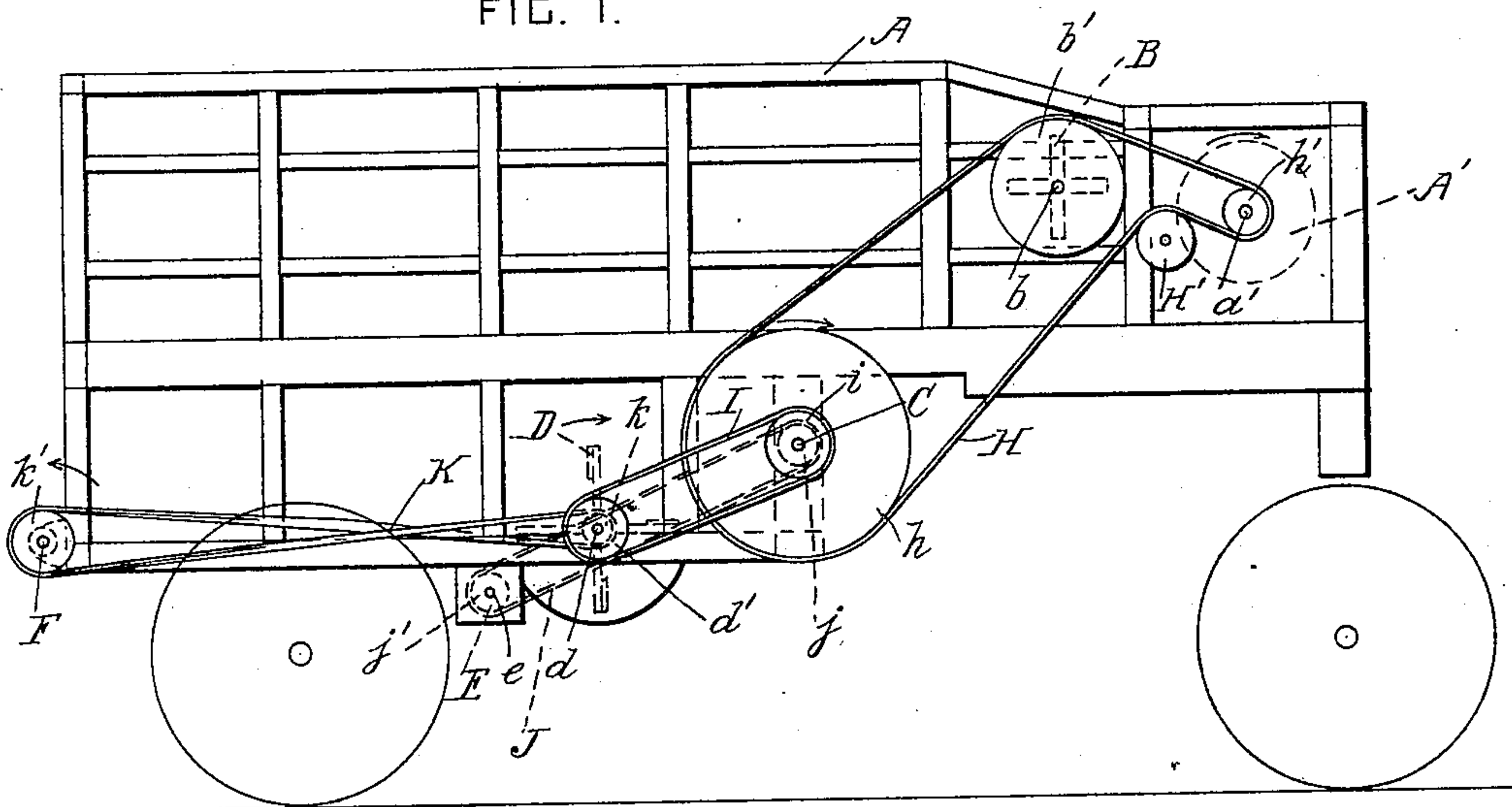
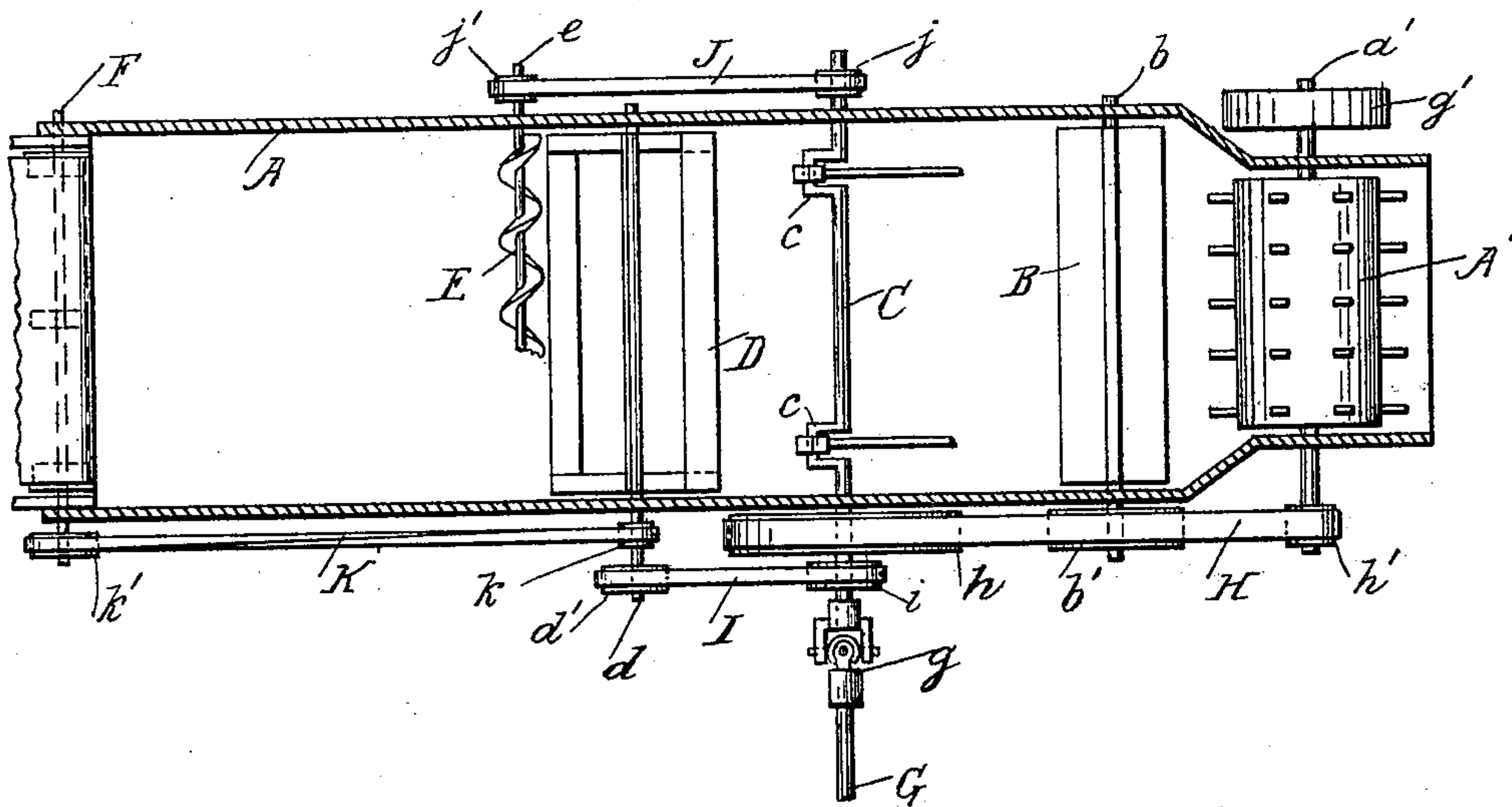


FIG. 2.



WITNESSES

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THRESHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 606,125, dated June 21, 1898.

Application filed September 13, 1897. Serial No. 651,480. (No model.)

To all whom it may concern:

Be it known that I, THOMAS S. CULBREATH, a citizen of the United States, residing at Antrim, in the county of Stafford and State of Kansas, have invented certain new and useful Improvements in Threshing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to threshing-machines; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of portions of a threshing-machine constructed according to this invention. Fig. 2 is a sectional plan view of the same.

A is the casing of the machine.

A' is the cylinder, and *a'* is the cylinder-shaft.

B is the beater, and *b* is the beater-shaft.

C is the shaft which drives the straw-shaker.

This shaft is provided with cranks *c* and is arranged at about the middle of the machine.

D is the fan, and *d* is the fan-shaft.

E is the grain-delivery conveyer, and *e* is its driving-shaft.

F is the driving-shaft of the straw-stacker, which is journaled at the other end of the machine from the cylinder. The beater is journaled between the cylinder and the straw-shaker shaft. The fan is arranged behind the straw-shaker shaft, and the grain-delivery conveyer is journaled between the fan-shaft and the straw-stacker shaft.

All the above-mentioned parts are of any approved construction, and in carrying out the present invention any other equivalent part or parts may be substituted for any one or more than one of them.

Prior to this invention it has been customary to drive the threshing-machine by applying power to the cylinder-shaft and driving all the other revoluble shafts of the machine either directly or indirectly from the said cylinder-shaft, which was located at one end of the machine. In carrying out the present invention the power is applied to the straw-shaker shaft, which is arranged at about the middle of the machine.

G is a driving-shaft which is connected to any approved motor, such as a horse-power, and *g* is a universal coupling of any approved construction which connects the shaft G with the driving-shaft C of the straw-shaker.

H is a driving-belt which passes over a pulley *h* on the straw-shaker shaft C, thence over a pulley *b'* on the beater-shaft, and around a pulley *h'* on the cylinder-shaft.

H' is a pulley which keeps the belt taut and increases its arc of contact with the pulley *h'*.

I is a driving-belt which passes over a pulley *i* on the straw-shaker shaft C and around a pulley *d'* on the fan-shaft.

The belts H and I are arranged on the same side of the machine and so that they lead substantially in diametrically opposite directions. The result is that there is very little friction on the bearing of the straw-shaker shaft which comes next to the driving-shaft. The pulley *h* is larger than the pulley *h'*, so that the driving-shaft G does not have to run at a very high speed. A fly-wheel *g'* is secured on the cylinder-shaft, so as to relieve the driving-shaft of strain when a mass of grain is thrust into the cylinder.

J is a driving-belt which passes around a pulley *j* on the straw-shaker shaft C and around a pulley *j'* on the shaft *e* of the grain-delivery conveyer.

K is a driving-belt which passes around a pulley *k* on the fan-shaft and around a pulley *k'* on the straw-stacker shaft. The tension of the belt K also aids the belt I in balancing the tension of the belt H and in preserving a substantial equilibrium of the parts.

When a threshing-machine is driven as hereinbefore described, it runs smoother and lighter, and a greater amount of grain can be threshed in a given time with a threshing-machine driven in this manner than can be threshed by the same threshing-machine when driven in the usual manner.

What I claim is—

In a threshing-machine, the combination, with a threshing-cylinder and its driving-shaft journaled crosswise of the machine at one end of it, and driving-shafts arranged crosswise of the machine toward its other end; of a main driving-shaft provided with cranks for operating the shaker and arranged crosswise of the machine at its middle part

and running at a slower speed than the said
cylinder-shaft, belt-pulleys and belts extend-
ing in opposite directions and operatively
connecting all the said shafts, a motor-shaft,
5 and a universal coupling connecting the said
motor-shaft to one end of the said main driv-
ing-shaft, substantially as set forth.

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

THOMAS S. CULBREATH.

Witnesses:

F. S. VEDDER,
R. W. THOMPSON.