

No. 732,690.

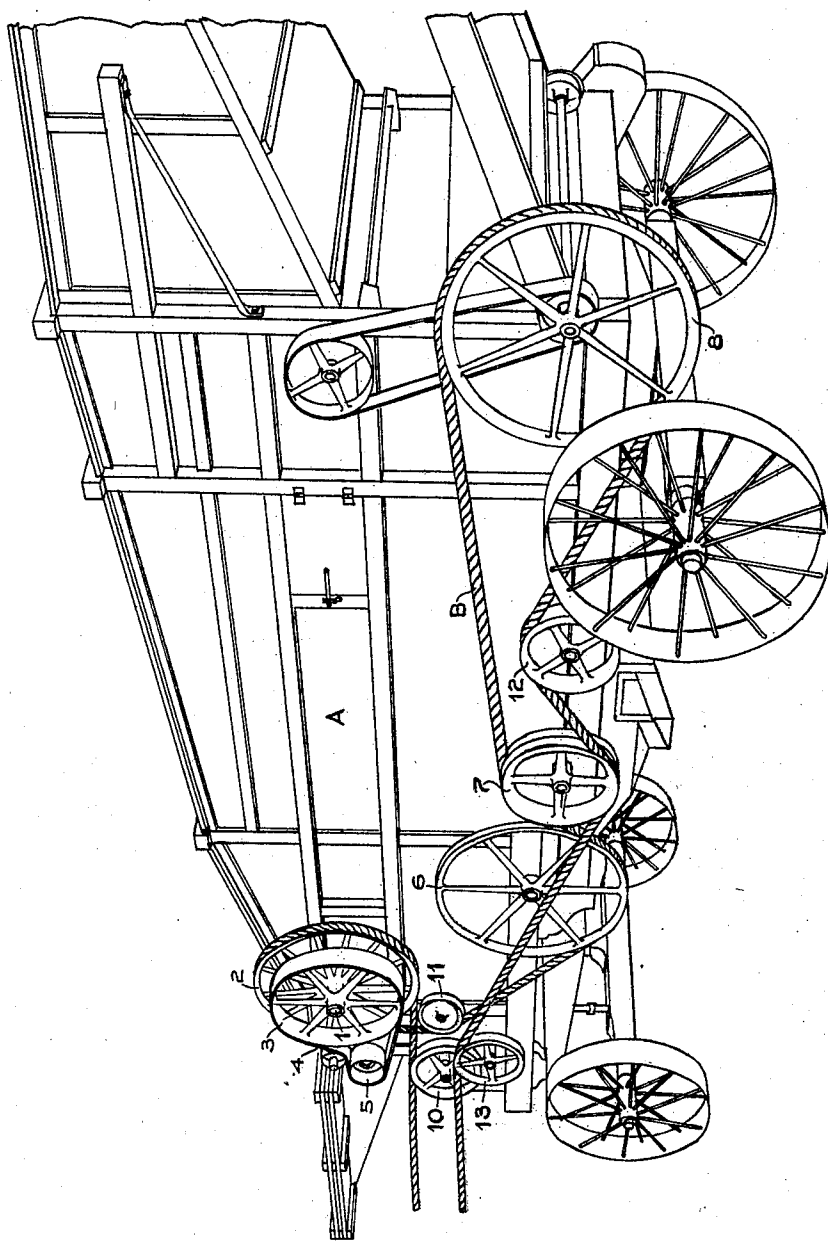
PATENTED JUNE 30, 1903.

G. E. WILSON.

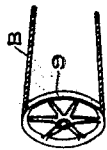
ROPE OR CABLE DRIVE FOR THRESHING MACHINES.

APPLICATION FILED JUNE 4, 1901.

NO MODEL.



Witnesses,
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UNITED STATES PATENT OFFICE.

GEORGE E. WILSON, OF STILLWATER, MINNESOTA.

ROPE OR CABLE DRIVE FOR THRESHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 732,690, dated June 30, 1903.

Application filed June 4, 1901. Serial No. 63,104. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. WILSON, a citizen of the United States, residing at Stillwater, in the county of Washington and State of Minnesota, have invented certain new and useful Improvements in Rope or Cable Drives for Threshing-Machines, of which the following is specification.

The chief object of the invention is to utilize in combination the distinctive advantages of a belt-drive for the threshing-cylinder and of a main driving-cable actuated from a pulley independently supported. By this arrangement the tightening of the cable is maintained by said drive-pulley. The pulleys on the thresher by reason of the use of the cable need not be in exact alinement, but may be in a plurality of parallel planes and placed closer together than is possible with a flat-belt connection, and the flat-belt drive, transmitting power through the beater-shaft to the cylinder-shaft, will allow slip to the cylinder-pulley whenever the cylinder is choked by excess of feed or by pieces of metal, such as broken teeth, &c.

In the accompanying drawing, forming part of this specification, the figure is a perspective side elevation of the thresher and the transmission-pulley of an engine provided with my invention.

In the drawing, A represents a threshing-machine of ordinary construction.

1 represents the beater-shaft, upon which is mounted a grooved pulley 2 and a flat-tread belt-pulley 3, said flat-tread pulley being connected by a belt 4 to the cylinder-pulley 5. 6 represents a grooved pulley mounted upon the counter-shaft which operates the cleaning mechanism. 7 represents a double-grooved pulley mounted upon the shaft of the cleaning-fan. 8 represents a grooved pulley mounted upon the lower stacker-shaft, and 9 represents the driving-wheel of the engine. (Not shown.)

As shown in the drawing, the rope B passes from the driving-wheel 9 of the engine over the guide-pulley 10, thence under and around the pulley 2, thence over the guide-pulley 11 and under the pulley 6, thence over the pulley 7, passing through the inner groove thereof, thence around the lower stacker-pulley 8, thence over the idler-pulley 12, under the

pulley 7, and over the guide-pulley 13 to the driving-pulley of the engine.

As will be noted, I provide grooved pulleys for the main actuating-shafts of the threshing-machine except the cylinder-shaft and connect these grooved pulleys by an endless cable with a grooved drive-wheel on the engine. No belt-tightening devices are used in connection with the rope-drive, as the same is kept tightened by the position of the grooved engine-pulley with reference to the pulleys of the machine. The cylinder-shaft, as shown, is connected by a flat-belt drive with one of the grooved pulleys. With this belt-drive belt-tightening devices are used, as shown. The result of this arrangement is that the operation of the machine will not be affected by the clogging of the cylinder, since the cylinder-belt will slip, whereas the cable running around the grooved wheels of the other shafts and passing over the grooved engine-pulley will not slip; also that uniform power is applied to the different grooved pulleys of the machine, since the cable is kept tight by a pull exerted upon it from a pulley supported independently of the machine instead of adjacent to some pulley, as would be the case in a belt-tightener, and, further, that all of the grooved pulleys can be arranged in a series of parallel planes. By means of the secondary flat-belt drive for the cylinder it will be evident that a greater or lesser power may be applied to the cylinder than applied to the main driving-pulleys through the main drive.

By driving directly from the engine to a series of points on the threshing-machine I overcome many objections incident to driving to some one point, notably from the engine to the cylinder, which necessitates drawing upon it as a source of supply for all the power necessary to operate various other parts of the machine.

I claim—

1. The combination with a threshing-machine and the drive-wheel of an engine, of a series of grooved pulleys carried by actuating-shafts of the machine, an endless cable running over said grooved pulleys and said drive-pulley, a flat-tread pulley carried by one of the grooved-pulley shafts, a flat-tread pulley carried by the cylinder-shaft of the

machine, and a flat belt connecting said flat-tread pulleys.

2. The combination with a threshing-machine, of a grooved drive-wheel supported
5 independently of the machine, a series of grooved actuating-pulleys carried by the machine and arranged in a series of parallel planes, an endless cable running over said
10 grooved machine-pulleys and grooved drive-wheel, a flat-tread belt-pulley carried by one of the grooved machine-pulley shafts, a flat-tread belt-pulley carried by the cylinder-shaft of the machine, and a flat belt connecting
15 said belt-pulleys whereby movement of the drive-wheel away from the machine will tighten the cable upon the grooved pulleys of the machine without affecting the belt-drive of the cylinder-shaft.

3. The combination with a threshing-machine, of a grooved drive-wheel supported 20 independently of the machine, a grooved pulley carried by the beater-shaft of the machine, a grooved pulley carried by the cleaning-mechanism shaft, a grooved pulley carried by the fan-shaft, a grooved pulley carried by the lower stacker-shaft, an endless 25 cable connecting all of said pulleys and said drive-shaft, and a flat-belt drive connecting the cylinder-shaft and beater-shaft.

In testimony whereof I affix my signature 30 in presence of two witnesses.

GEORGE E. WILSON.

Witnesses:

H. S. JOHNSON,
EMILY EASTMAN.