

EXPANSION REELS FOR REAPERS.

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INVENTOR:

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN EXPANSION-REELS FOR REAPERS.

Specification forming part of Letters Patent No. 175,175, dated March 21, 1876; application filed December 18, 1875.

To all whom it may concern:

Be it known that I, ALFRED WATSON SHAW, of Chatham Centre, in the county of Medina and State of Ohio, have invented a new and useful Improvement in Expansion-Reel for Reapers, of which the following is a specification:

Figure 1 is a top view of my improved reel, partly in section to show the construction. Fig. 2 is a side view of the same, partly in section through the line *xx*, Fig. 1. Fig. 3 is a detail view of the socket-plate for the reel-arms.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved reel for reapers, which shall be so constructed that it may be conveniently expanded and contracted to work closer to and farther from the cutter-bar and ground, as circumstances may require, without stopping the machine and without changing the tension of the driving belt or chain.

The invention consists in the combination of the sectional plate, provided with its sockets and rollers, the sliding reel-arms, the reel-bars, and the braces with the head of the reel-shaft.

A represents the reel-post, to the upper end of which is attached a bearing, B, for the reel-shaft C. The reel-shaft C is made of extra-heavy gas-pipe, to make it light, and, at the same time, strong.

The shaft C is kept from longitudinal movement in its bearing B by the driving-pulley D, attached to it at one end of said bearing, and by a collar, E, attached to it at the other end of said bearing.

To the outer end of the reel-shaft C is attached a head, F, to which is bolted a plate, G. The plate G is made in sections, and has sockets *g* formed upon it, crossing each other at right angles, to receive the reel-arms H. One of the sockets, *g*¹, projects farther from the body of the plate than the other, so that

the reel-arms, passing through said sockets, may not interfere with each other.

At the outer ends of the sockets *g*¹ are formed hollow projections, in which are pivoted small rollers *g*², to bear against the edges of the reel-arms and prevent them from binding in said sockets.

H are the four reel-arms, the two opposite ones of which enter the opposite ends of the sockets *g*¹ and overlap each other within said sockets.

To the outer ends of the arms H are bolted the reel-bars I, which are held in a horizontal position by the braces J. The outer ends of the braces J are bolted to the bars I, and their inner ends are bolted to the arms H.

To the reel-bars I, near their outer ends, are pivoted the two outer ends of the braces K, the inner ends of which are pivoted to a collar, L, that slides upon the reel-shaft C.

The collar L has a ring-groove formed in it to receive the forked end of a rod, M, the outer end of which is pivoted to a lever, N.

The inner end of the lever N is pivoted to a semicircular plate, O, attached to the reel-post A.

By this construction, by operating the lever N, the reel may be expanded and contracted, as may be required.

The lower side of the curved edge of the plate O is notched to receive a spring attached to the lower side of the lever N, to keep said lever from working out of place when adjusted.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of reel-shaft head F, the socketed sectional plate G *g*¹, having roller *g*², the sliding reel-arms H, the reel-bars I, and the braces J, as and for the purpose specified.

ALFRED WATSON SHAW.

Witnesses:

JONATHAN PACKARD,
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