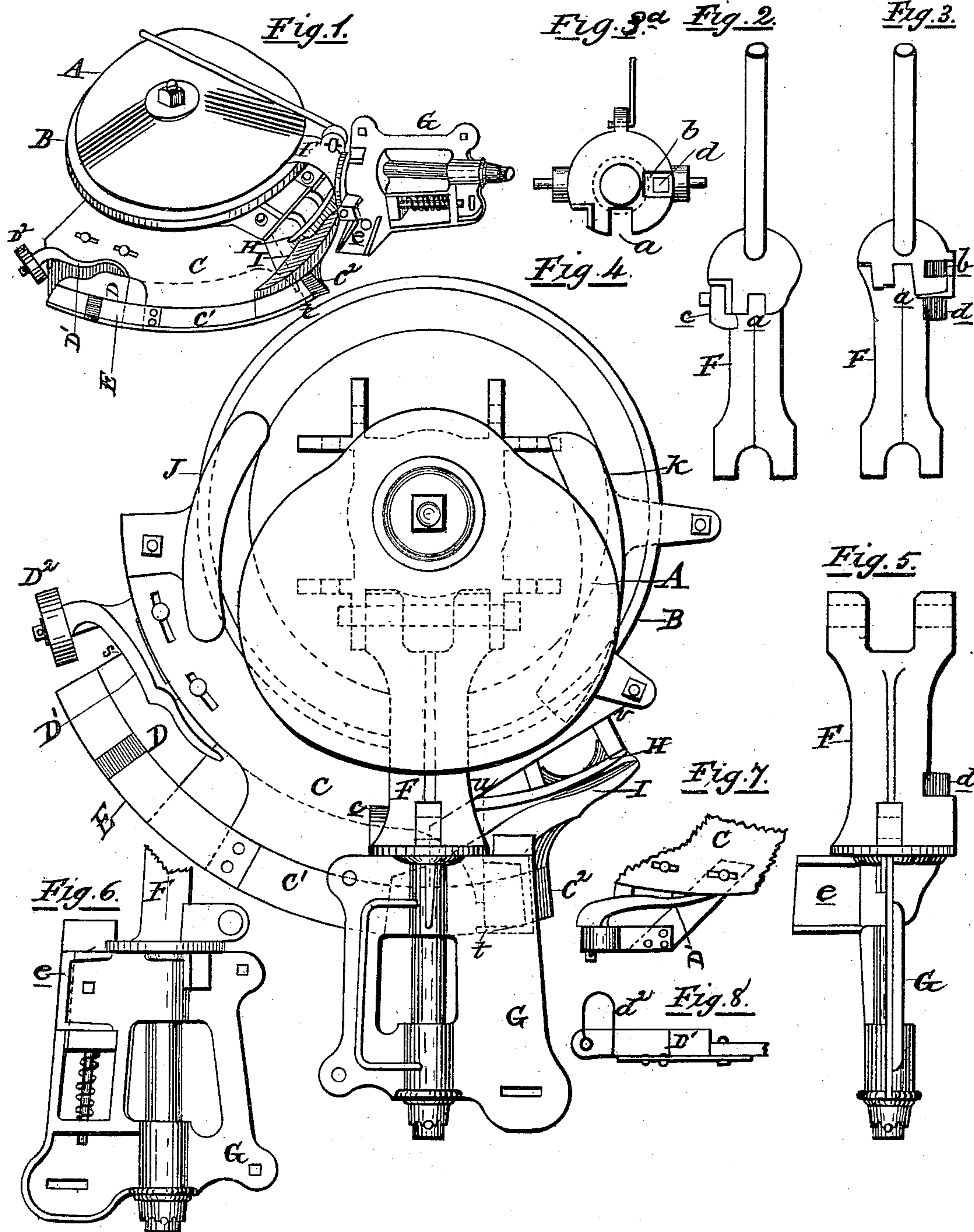


(Model.)

W. S. WILSON.
HARVESTING MACHINE.

No. 267,476.

Patented Nov. 14, 1882.



Witnesses:

Thos Woodbridge
John Elliott

Inventor:

William Sanford Wilson
per William Gill
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM S. WILSON, OF AYR, ONTARIO, CANADA, ASSIGNOR TO JOHN WATSON, OF SAME PLACE.

HARVESTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 267,476, dated November 14, 1882.

Application filed January 16, 1882. (Model.) Patented in Canada February 9, 1882, No. 14,157; extended March 22, 1882, No. 14,468; extended March 23, 1882, No. 14,469.

To all whom it may concern:

Be it known that I, WILLIAM SANDFIELD WILSON, of the village of Ayr, in the county of Waterloo, in the Province of Ontario, Canada, machinist, have invented certain new and useful Improvements in Harvester-Rakes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has for its object a harvester-rake so constructed that there will be the least possible frictional resistance compatible with the weight and the number of parts in motion.

My invention consists in improvements hereinafter described, illustrated in the drawings, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of that portion of the rake-jack to which my improvements relate. Fig. 2 is a perspective view, on an enlarged scale, of my rake-arm, showing the usual notch for locking the rake-head thereto in the position for raking, and the tripper-piece secured thereto by a set-screw when it is desired to make the rake automatic. Fig. 3 is also a perspective view on the same scale; and Fig. 3^a, an end view of my rake-arm, showing an additional notch at nearly a right angle to the ordinary notch, which I adopt when dispensing with the track or ledge for locking the rake-head to the rake-arm in the position for reeling. Fig. 4 is a plan view of the rake-jack on a still larger scale, showing, first, the ordinary cam which controls the varying positions of the rake-arms during their revolution; second, the crown-wheel with arm-seats (in dotted lines) below the cam; third, the ascending and descending tracks; fourth, the main plate of the rake-jack, upon which is constructed the track or ledge for supporting the rake-head while reeling; fifth, the tripping-cam for unlocking the latch from the ordinary notch in rake-arm before the wing or elbow of the rake-head comes in contact with the abrupt incline in front of the track, which automatically turns it over to its position for reeling; sixth, the adjustable tripping-cam for tilting the rake-head automatically, so as to leave the sheaf in the proper position on the grain-table, also the

auxiliary pulley or spring in connection with the cam, the tripping-cam aforesaid pressing back the latch and the pulley or spring turning over the rake-head. This view shows the rake-head in its position for reeling, the head having just been tilted by the incline in front of the track. Fig. 5 is a view showing my rake-head as locked on the rake-arm and in its position for raking. Fig. 6 is a view of the opposite side of the rake-head, showing the construction thereof. Fig. 7 is a plan view of the curved spring, which I occasionally use instead of the pulley for tilting the rake, so as to leave the sheaf in a proper position on the grain-table. Fig. 8 is a side view of the same.

A represents the cam; B, the crown-wheel; C, the main plate of the rake-jack; C', the track or ledge constructed thereon; D, the adjustable block with tripping-cam D' and the pulley D² thereon; E, a steel plate for bridging the space between the adjustable block and the track; F, the rake-arm; G, the rake-head; H, the trip, which swings inwardly and downwardly at the will of the operator, and downwardly automatically by the cam-tripper *c*, (shown in Fig. 2,) attached to the rake-arm; J, the ascending track; K, the descending track; I, the tripping-cam, connected with the abrupt incline C² in front of the track C'; *a*, the usual notch in the rake-arm for locking the rake-head in its position for raking; *b*, the second notch, which I adopt occasionally for locking the rake-head in its position for reeling, thereby dispensing with track or ledge C', which notch is constructed with a pocket, in which is a sliding dog, *d*, which is pushed against the dog in the rake-head by its coming in contact with the upper outside edge of the descending track, and thus releases the dog from the second notch, which allows the head to turn over to its usual position for raking. *c* is a tripping-piece, (shown in Fig. 2,) only used when it is desired to use the rake automatically, and which, as the rake-arm is carried around, presses down the trip H and along with it the tripping-cam I and the incline C², and allows the rake-head to pass over it, with the teeth downward for raking off the gavel. *e* is a wing or

elbow, secured to or forming a part of the rake-head, which, in its course of a revolution, comes in contact with the abrupt incline C^2 and turns the head in its position for reeling.

5 When I use the second notch, b , for locking the rake in position for reeling the part of the main plate between the letters s and t may be removed, thus dispensing with the track.

10 Having thus described my invention, I claim—

1. In a harvester-rake, a track or ledge constructed with an abrupt incline, C^2 , and the movable unlocking-cam I , in combination with the rake-arm having a locking-notch, a , a rake-head provided with a locking-dog pressed inwardly by a spring, and an elbow, e , projecting from the side in advance of the rake-head, so that when the rake is in operation the locking-dog in the rake-head will be released from the locking-notch in the rake-arm by the unlocking-cam I , and the projecting elbow e coming in contact with the incline C^2 , the rake will be turned over from its raking to its reeling position, as shown and described.

25 2. In a harvester-rake, a track or ledge, constructed and attached as described, and an unlocking-cam, I , in combination with a trip, H , hinged to the cam I , and a tripper, c , attached to the rake-arm F , whereby when the rake is in operation the tripper c will press down the tripper H and also the unlocking-cam and allow the rake-head to pass in the locked and raking position, as shown and described.

35 3. In a harvester-rake, the rake-head provided with a sliding locking-dog, a rake-arm provided with the locking-notch a in the lower part of the flange thereof, a second notch, b , in the same flange and about at right angles to the notch a , a sliding dog, d , inclosed in a pocket in mid-rake arm, located directly below the second notch, and the elbow e , in combination with the unlocking-cam I , the ledge having the incline C^2 , and the descending track

45 K, so constructed that its upper outer edge will, when the rake is in operation, press up the dog d , which will push up the locking-dog in the rake-head and release the same, so that it will turn down into the notch a and be released by the unlocking-cam I , and the rake, 50 turned by the incline C^2 and elbow e , will be again secured by the notch a and carried over and clear of the track, so that the latter can be dispensed with without impairing the efficiency of the machine.

55 4. The track or ledge of a harvester-rake, constructed with an abrupt incline at the front end thereof, in combination with the elbow e on the rake-head and the unlocking-cam D' and pulley D^2 at the rear end of the track, as 60 and for the purposes set forth.

5. A rake-head having a sliding locking-dog, in combination with the rake arm having the notch for locking the said dog to hold the rake-head in its position for raking, a second 65 notch at about a right angle to the first notch for holding the rake-head in a position for reeling, a sliding dog carried in a pocket in the second notch, and means for moving said dog for the purpose of releasing the dog in the 70 rake-head from the said second notch while used for reeling, as described.

6. A rake-arm having the usual notch for holding the rake-head in position for raking, and a second notch for holding the rake in a 75 position for reeling, in combination with a track with the abrupt incline therein, for the purposes set forth.

7. The rake-arm having the two notches, as described, and the sliding dog d , in combination with the rake-head having a sliding dog, and the descending track K , which presses upwardly the said sliding dog d and releases the rake-head dog, as set forth.

WILLIAM SANDFIELD WILSON.

Witnesses:

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