

UNITED STATES PATENT OFFICE.

WILLIAM ATKINSON MILNE, OF BROWN'S CORNERS, CANADA.

PEAT-COLLECTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 713,129, dated November 11, 1902.

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To all whom it may concern:

Be it known that I, WILLIAM ATKINSON MILNE, lumberman, of the village of Brown's Corners, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Peat-Collecting Machines, of which the following is a specification.

My invention relates to improvements in peat-collecting machines; and the object of the invention is to provide a machine which will collect peat directly from the marsh in a dry and disintegrated state and convey it to a suitable car; and it consists, essentially, in the novel arrangement and construction of parts hereinafter described.

Figure 1 is a plan view showing the general arrangement of my machine and conveying-car. Fig. 2 is an enlarged perspective view of my machine. Fig. 3 is a detail of my flexible pipe-joint. Fig. 4 is a cross-section through the mouthpiece of the suction-tube.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the main supporting-car, provided with wheels *a*.

B is the track.

C is a supplemental supporting-car provided with wheels *c*, designed to travel on the track B.

c' is a connecting-rod loosely secured to the cars A and C, keeping them at a suitable distance apart.

D is a fan-casing suitably secured in a diagonal position to the car A and provided with a suitable vacuum-fan.

E is a motor provided with a driving-pulley *e*.

d is the shaft of the fan, provided with a pulley *d'*.

e' is a belt connecting the drive-pulley *e* with the pulley *d'* of the fan.

F is a suction-tube provided with a mouthpiece *F'*.

f is a flexible joint composed of a series of annular sections *f'*, pivotally connected together at either side by diametrically opposite bolts *f*².

*f*³ represents guideways secured diametrically opposite each other to each section of the joint.

*f*⁴ represents metal strips secured at one end to a portion of the suction-tube and loosely held in the guideways *f*³. These strips are designed to insure that each section of the joint takes an equal portion of the bend, thereby preventing the sections parting at any place and allowing ingress of air.

To allow for the vertical movement of the suction-pipe, I provide the bolts *f*² at diametrically and horizontally opposite points, so as to accommodate the height of the mouthpiece to the unevenness of the ground.

The mouthpiece *F'* is formed of the downwardly and laterally extending portion and the vertical portion *F*³.

G represents slide-plates attached to the mouthpiece *F'* and designed to make, in connection with the mouthpiece, a furrow of uniform width.

H is a shoe composed of the plate *h*, secured centrally to the mouthpiece by angle-irons *h'*.

*h*³ represents angle-bars secured to the plates *h* and having upturned outer ends.

*F*⁴ is a shoe-plate secured to the bottom of the angle-bars *h*³, forming the body of the shoe.

G' and *G*² are parallel connecting-bars secured to suitable standards or brackets *g* *g'*, secured to the car A at their inner ends, and pivotally secured to brackets *g*² and *g*³, secured to the shoe *F* at their outer ends, so as to keep the mouthpiece at right angles to the track.

*G*⁵ is an adjustable bar pivotally secured at its outer end to the bracket *g*² and provided with a series of holes *G*⁴.

*g*⁴ is a standard secured to the car C and provided with a swivel top socket *g*⁵, having a hole *g*⁶. The socket *g*⁵ is designed to support the bar *G*⁵ in position, being held in place by a bolt *g*⁷ passing through the socket *g*⁵ and one of the holes *G*⁴.

*G*³ is a brace connecting the upper portion of the mouthpiece with the bar *G'*. The mouthpiece is connected to the suction-tube by a clamping-collar *g*⁸, provided with lugs *g*⁹ and a tightening-screw *g*¹⁰. When it is necessary for the mouthpiece of the suction-tube to move in a new track, it is merely necessary to unclamp the collar *g*⁸ and withdraw the bolt *g*⁷, thus enabling the mouthpiece to

be moved inwardly or outwardly, as desired, the parallel bars always keeping said mouthpiece in the same angular position to the track.

I is the conveyer-car.

5 i is a tube connecting the vacuum-fan casing with the conveyer-car.

It will be seen from this description that a great extent of ground may be covered without necessitating the removal of the tracks.

10 The peat is first harrowed and allowed to dry until it is disintegrated or in the form of dust or powder, when it is removed by passing the mouthpiece of the suction-tube over the surface of the marsh. The dust is then
15 drawn up into the fan and expelled into the conveyer through the tube i.

It will be seen from this description that I provide a very simple and expeditious way of removing the peat, whereby a great saving
20 of time and labor is effected as compared with the former mode of removing the peat in a wet state and drying it afterward.

What I claim as my invention is—

1. In combination, a supporting-car, a fan-
25 casing carried thereby having a suitably-driven fan, a suction-tube connected to said casing and having a flexible portion and a downwardly-turned outer end, and means for adjusting said suction-tube as to its radial
30 and vertical position, substantially as described.

2. The combination with the supporting-cars, of a fan-casing supported on the same and provided with a fan suitably driven, a
35 suction-tube connected to said casing provided with a flexible joint and having a down-

turned outer end and a longitudinally-flaring and laterally-converging mouthpiece rotatably connected to said tube, means for adjusting the radial and vertical positions of the
40 suction-tube and means for retaining the mouthpiece in the same angular position to the body of the machine throughout such radial movement as and for the purpose specified.

3. The combination with the supporting-car, of the fan-casing secured thereto and provided with a suitably-driven fan, of a suction-tube connected thereto having a downturned
50 outer end and an inner flexible joint, connecting-rods pivotally connected to the truck and to the outer end of the suction-tube, a supplemental car, a connecting-rod pivotally connected to the outer end of the tube and
55 adjustably and pivotally connected to the supplemental car as and for the purpose specified.

4. The combination with the supporting-car and the conveyer-car, of a fan-casing connected by a tube to the conveyer-car secured
60 to the supporting-car provided with a suitably-driven fan, of a suction-tube connected to said fan-casing by a flexible joint and having a downturned outer end, a suitable mouthpiece secured thereto, dividing-plates secured
65 to each side of the said mouthpiece and a supporting-shoe secured beneath the mouthpiece as and for the purpose specified.

WILLIAM ATKINSON MILNE.

Witnesses:

M. MACLAREN,
L. TRIMBLE.