996,898.

W. WIELANDT.

PEAT DREDGING MACHINE.

APPLICATION FILED SEPT. 14, 1909.

Patented July 4, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

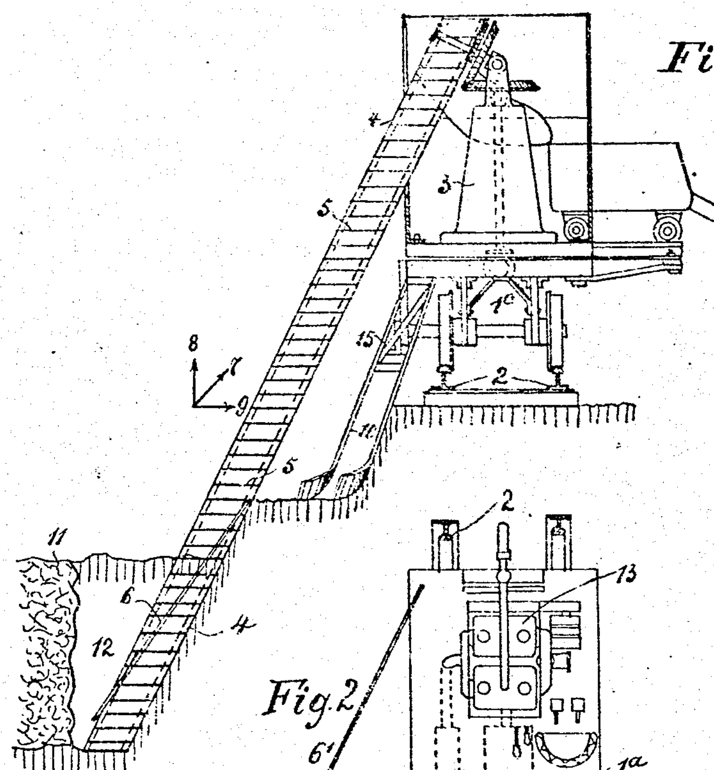
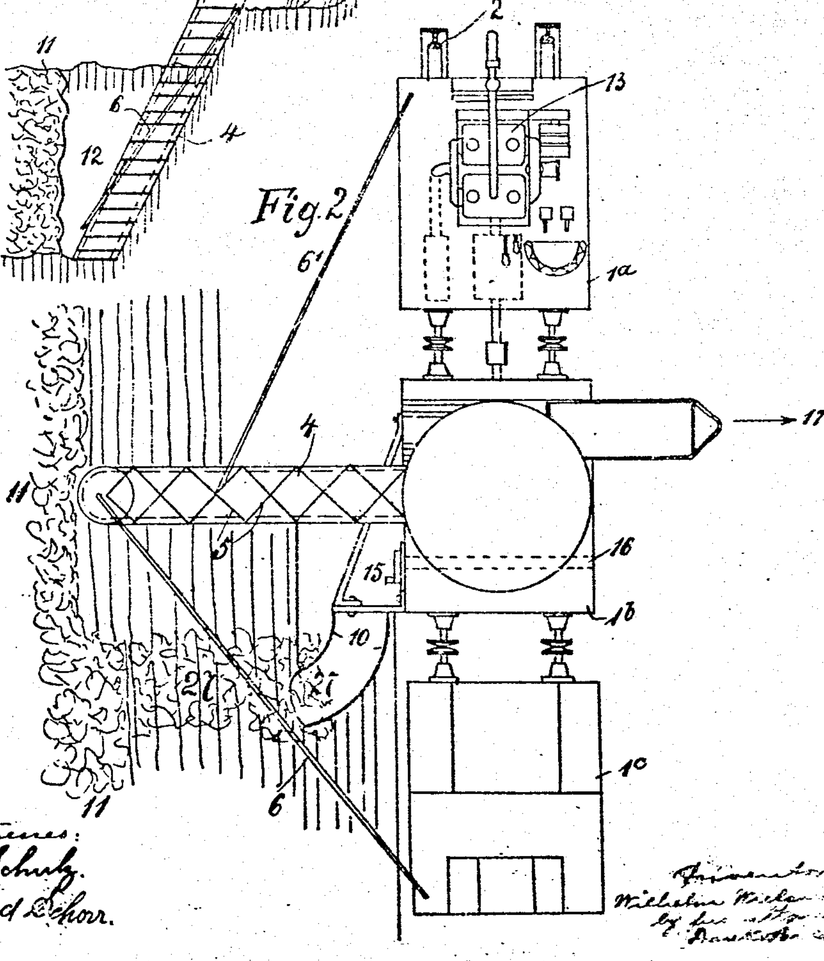


Fig. 2



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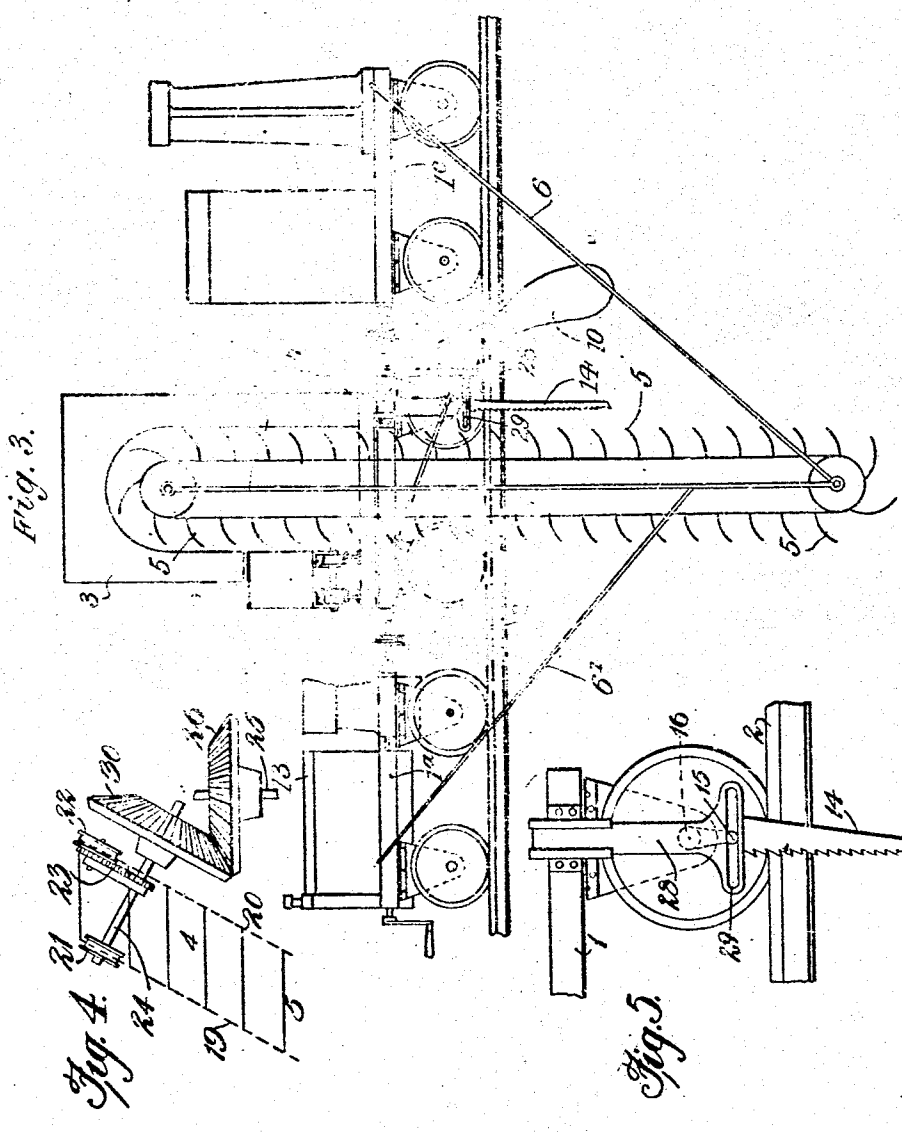

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UNITED STATES PATENT OFFICE.

WILHELM WIELANDT, OF OLDENBURG, GERMANY.

PEAT-DREDGING MACHINE.

996,898. Specification of Letters Patent. Patented July 4, 1911

Application filed September 14, 1909. Serial No. 517,618.

To all whom it may concern:

Be it known that I, WILHELM WIELANDT, a subject of the German Emperor, residing at Oldenburg, Germany, have invented new and useful Improvements in Peat-Dredging Machines, of which the following is a specification.

The invention relates to a peat dredging machine, which is well adapted for dredging soft moor-peat not capable of sustaining heavy pressure. For this reason the machine is constantly advanced, and excavates, while moving, an inclined trench by a laterally inclined dredging arm so that there is no risk of the bog yielding under the track of the machine at the place of operation. The dredging arm is laterally inclined, its upper end being suspended from a rotatable framework mounted upon the train, so that it is arranged in a plane substantially at right angles to the direction of travel. Owing to the inclination of the arm, the use of a second supporting frame is obviated Furthermore, the machine is so constructed, that it will cut the peat into a plurality of steps having sloping banks, so that a collapsing of the moor ground is not liable to occur. The lateral inclination of the dredging arm enables horizontally extending jibs to be dispensed with, as the heavy dredging arm is located close to the train and is pivotally suspended thereon. Also the masses which have been dredged, are not only raised, but are at the same time conveyed inward over the train, without a special horizontal conveying device, the weight of such transporting device being thus eliminated. Finally, the lateral inclination of the dredging arm, permits a peculiar movement of the knives, so that they act on the peat not only vertically, but also with a cutting movement in the direction of their length as they travel inward.

In the accompanying drawings: Figure 1 is an end view of my improved dredging machine; Fig. 2 a plan thereof; Fig. 3 a side view; Fig. 4 a detail of the driving means for the dredging tumblers, and Fig. 5 a side view of the sawing device.

1^a, 1^b, and 1^c designate a number of cars which are coupled to form a train moving on track 2. Car 1^b, supports a frame 3, to which is connected the upper end of a laterally inclined dredging arm 4. The dredging arm supports an endless conveyer carrying the dredging scoops 5, and is held in position by braces 6 and 6', which connect its lower end with cars 1^c and 1^a, respectively. The knife edges of scoops 5 pass through the peat bed simultaneously with an upward and longitudinal movement, so as to sever the peat block by a drawing cut. Back of arm 4, there are mounted on car 1^b, a pair of plowshares 10 which are adapted to throw the earth-roof 27 into the pit 11 which has been previously excavated by the scoops. In order to show the lower end of the dredger, the earthroof at 12 has been omitted in the drawing. If desired, the plow may be located in front of the dredging arm, in lieu of being arranged back thereof.

The motor 13 mounted on car 1^a, serves to drive the train and to simultaneously operate the conveyer chain carrying the scoops 5.

In front of plow-shares 10 there is carried by car 1^b, a saw 14 operated by a crank 15 which is mounted upon one of the car-axles 16. Crank 15 engages the slot 29 of a saw holder 28, and thus imparts a reciprocative movement to the latter. In this way the saw will sever the peat fibers, or other impediments, which would be apt to obstruct the advance of the plow-shares.

In order to horizontally guide scoops 5, notwithstanding the lateral incline of the dredging-arm, I preferably arrange the two conveyer chains 19 and 20, as shown in Fig. 4. Chain 19 runs over wheel 21, while chain 20 runs over wheel 22, the latter being rotated with the same speed as wheel 21 by means of a chain drive 23. Thus the cutting edges of the dredger knives are arranged, substantially horizontal, so that during the excavation each of them performs an oblique movement indicated by the arrow 7, this movement resulting from the vertical movement 8, which effects the cutting proper, and from the horizontal movement 9. Shaft 24 of wheel 21 receives motion from shaft 25 by intergeared bevel wheels 26, 30.

I claim:

1. A peat dredger comprising a traveling frame, a laterally inclined dredging arm depending therefrom, an endless conveyer movable along said arm and comprising parallel chains, and scoops secured obliquely to said chains and having cutting edges that are constantly maintained in a horizontal position, said scoops being adapted to work in the direction of the forward movement of the dredger.

2. A peat dredger comprising a frame

adapted to travel continuously during the excavation, a dredging arm depending therefrom and extending laterally to the direction of travel, an endless conveyer movable along said arm and comprising parallel chains, and scoops secured obliquely to the chains, said scoops being adapted to penetrate the peat in the direction of said travel and to be simultaneously drawn laterally through the peat.

3. A peat dredger comprising an endless conveyer, scoops secured thereto, a plow-share arranged back of the conveyer, and a vertically reciprocative saw arranged in advance of the plow-share.

In testimony whereof I have hereunto signed my name this 30th day of August 1909, in the presence of two subscribing witnesses.

WILHELM WIELANDT.

Witnesses:
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FREDERICK HOYERMANN.