W. L. SHEPARD & H. J. WICKHAM.

MACHINE FOR FORMING PEAT INTO BLOCKS

APPLICATION FILED JAN. 29, 1910.

980,685.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.

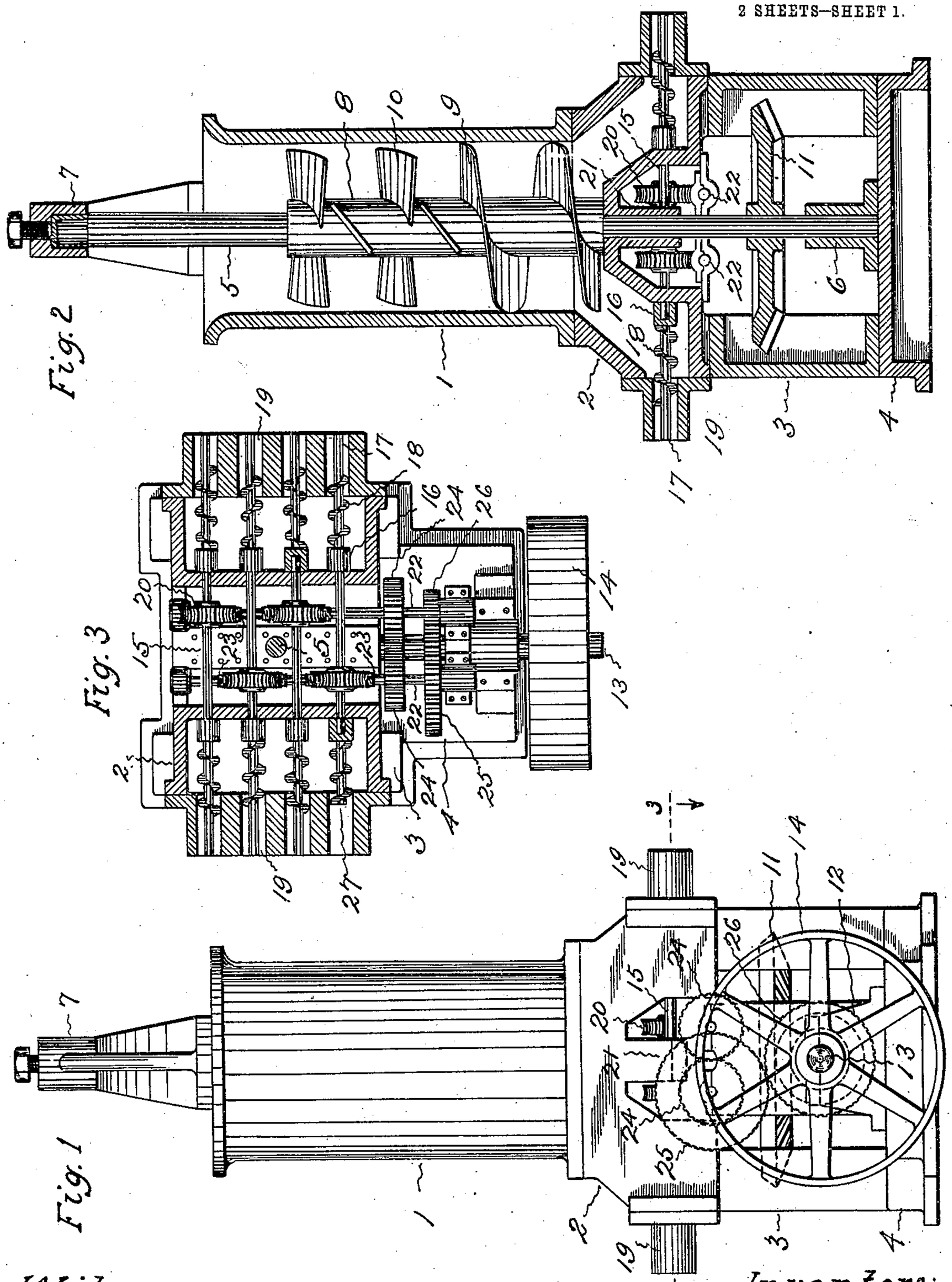

Fig. 2

Fig. 3

Fig. 1

Witnesses:

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Josephine M. Strempfer.

Inventors:

Wilbur L. Shepard

Horace J. Wickham

by Harry P. Williams atty

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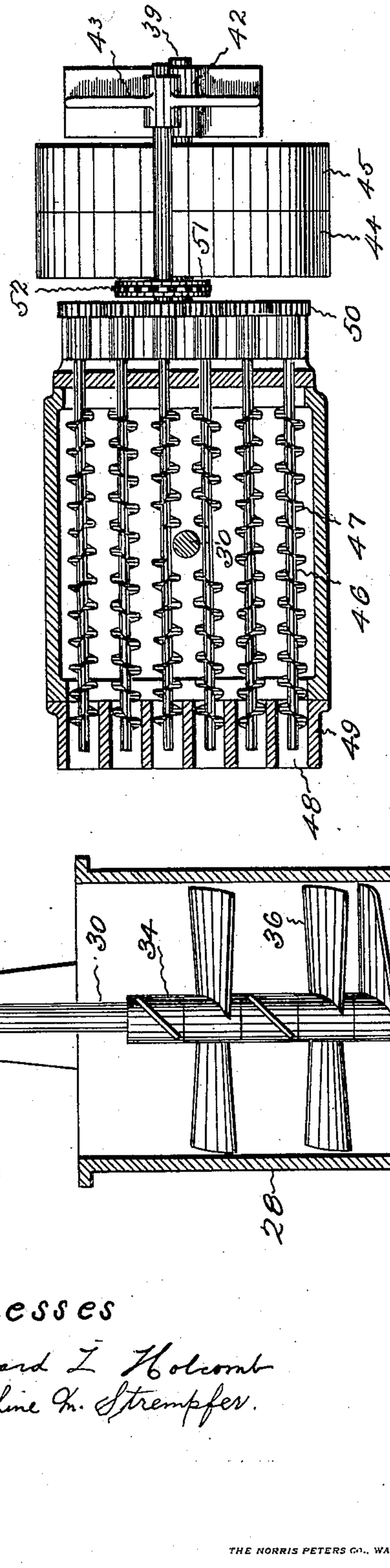

Fig. 5

Fig. 4

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UNITED STATES PATENT OFFICE.

WILBUR L. SHEPARD, OF ELMWOOD, AND HORACE J. WICKHAM, OF MANCHESTER, CONNECTICUT.

MACHINE FOR FORMING PEAT INTO BLOCKS.

980,685. Specification of Letters Patent. Patented Jan. 3, 1911.

Application filed January 29, 1910. Serial No. 540,787.

To all whom it may concern:

Be it known that we, WILBUR L. SHEPARD and HORACE J. WICKHAM, citizens of the United States, residing at Elmwood and Manchester, respectively, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Machines for Forming Peat into Blocks, of which the following is a specification.

This invention relates to a machine for forming broken and irregular masses of nearly dried peat into blocks, suitable to be subsequently treated and transformed into condition to be used as fuel.

The object of this invention is to provide a simple apparatus, which may be operated by a minimum amount of power, for receiving, pressing and rapidly delivering large quantities of peat in suitable shape to be subsequently carbonized.

Peat as it comes from a bog, and in a partially dried state is shoveled into or otherwise deposited in the hopper of the apparatus illustrated as embodying the invention, and fed downward by a large vertically arranged screw to a plural number of smaller horizontally arranged screws which latter screws force it transversely outward through a number of forming spouts, from which the peat continuously emerges in the shape of bars or cylinders.

Figure 1 of the accompanying drawings shows a side elevation of a machine which embodies the invention. Fig. 2 shows a vertical section of the same machine. Fig. 3 shows a horizontal section on the plane indicated by the dotted line 3—3 on Fig. 1.

In the form of machine illustrated, there is a vertical hopper 1 that is set on a casing 2, which is supported by a frame 3 mounted on a bed 4. Extending vertically through the center of the hopper, casing, and frame is a shaft 5. This shaft is supported at the bottom by a bearing block 6, mounted on the bed, and at the top by a yoke 7 that is fastened to the upper edge of the hopper. On this shaft, in the hopper, is a sleeve 8, which is shown as provided with a feed screw 9, and screw blades 10. On the vertical shaft, near the lower end, is a bevel gear 11. Meshing with this gear is a bevel pinion 12 on the horizontal driving shaft 13, that in front of the frame has a driving pulley 14.

Supported by the casing are a number of horizontally arranged arbors 15. The ends of these arbors are preferably square, and fitting the squared ends of the arbors are socketed hubs 16 attached to spindles 17 which are provided with horizontal feed screws 18. The outer ends of these horizontal feed screws extend into the discharge spouts 19, the openings of which may be circular or angular in cross section, as desired. On each arbor is a worm wheel 20, these wheels being located alternately on opposite sides of the central partition 21 of the casing. Extending below the worm wheels, at right angles to the arbors, on each side of the central partition, is a shaft 22. These shafts are provided with worms 23 which mesh with the worm wheels on the arbors above. The worm shafts are provided with intermeshing gears 24, so that they will rotate together. One of the worm shafts has a gear 25 which meshes with a pinion 26 on the driving shaft.

With this construction, peat that is delivered into the upper end of the hopper, is fed by the vertically arranged screw blades and feed screw down into the casing to the horizontal screws which force it transversely out through the several spouts on both sides of the casing. If the ends of the horizontal feed screw spindles extend to the ends of the discharge spouts, the preferable form, the peat emerges with holes in the middle. If the horizontal feed screw spindles do not extend to the ends of the spouts, but terminate at the ends of the screws, as shown at 27, the peat emerges in a solid form. When the outlet spouts are circular in cross section, the peat will emerge in cylindrical pieces. When the cross sectional shape of the spouts is angular, the peat passes out in pieces that are angular in cross section. As the peat emerges from the several spouts, it may be cut or broken off in the desired lengths.

It requires but a minimum amount of power to drive this machine, for the reason that the large mass of peat, which is continuously forced down by the vertical feed screw, is broken up and forced out by the several horizontal screws in such manner as to divide up the resistance at the discharge spouts and relieve the back pressure on the vertical screw.

The invention claimed is:—

A peat blocking machine having a frame,

a casing mounted on the frame, a hopper with a receiving opening at its upper end mounted on the casing, and opening thereinto, a shaft extending vertically through the hopper and casing, a driving gear on the lower end of said shaft in the frame, a vertical feed screw on said shaft in the hopper, a plural number of discharge spouts opening from opposite sides of the casing, horizontal spindles extending transversely across the casing and terminating at the discharge spouts, horizontal discharge screws on said spindles for forcing peat from the casing through the discharge spouts on opposite sides of the machine, and intermeshing gears for rotating the spindles.

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