

in factories working twelve vats, two sets of rollers will be required. A ground plan arranging these and their accompaniments is presented by Fig. 3.

A little girl, A, opens the bundles of straw, and carries them to B, who divides them and gives them to the seeder C. She places them on the table from which they are taken by D, whose duty it is to pass the seed end through a buffing machine to separate the chaff.

This is a covered cylinder, three feet in diameter, and five feet in length, making one hundred thirty revolutions per minute. On its circumference are six rows of wooden teeth, each five inches long, and distant from each other a-half inches at base.

It either straightens the root end by hand, or

puts a loose bundle in the machine for the purpose, from which it is taken by F, and bound. The same routine is performed on the opposite side.

If more straw is seeded than is required for steeping, it is re-stacked.

Six tons of straw with the seed on may be done by two sets of rollers per day, at a cost of two shillings and ten pence per ton.

All the seed, chaff, and uncrushed bolls that come from the seeding rollers are passed through a machine, (Fig. 4,) having two sieves. The wires in sieve A, are about  $\frac{5}{16}$  of an inch apart, those in sieve C,  $\frac{1}{16}$  of an inch.

The flax-seed, chaff, and sand fall through it, upon the shuffle-board B, which delivers them to

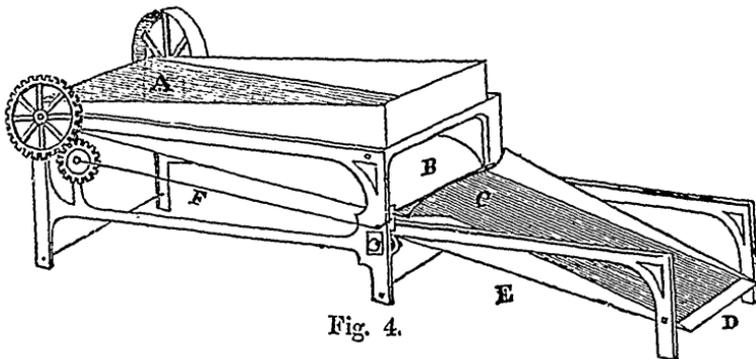


Fig. 4.

through which all the seed and fine dust fall. The chaff passes over to the floor at F. It gives motion to it, causing it to rise and fall with a jerk. A horizontal motion is given by the crank-rod F, worked by the motion C has a motion similar to A.

are either crushed, or sold to farmers for feeding purposes at one shilling and two pence per bushel. The chaff is worth from two pence to four pence per bushel.

An arrangement is made at E, (Fig. 4,) by which elevators raise the seed to the hopper A, (Fig. 5.)

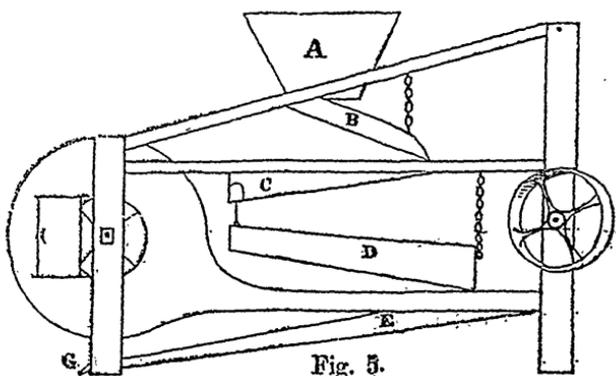


Fig. 5.

This side view of the fanners are represented by the shuffle-boards (B, D,) having a horizontal

motion from cranks, and two sieves (C, E) moved by cams. The sieve C is made of par 1