

F. G. SARGENT.
Wool Washing Machines.

No. 230,152.

Patented July 20, 1880.

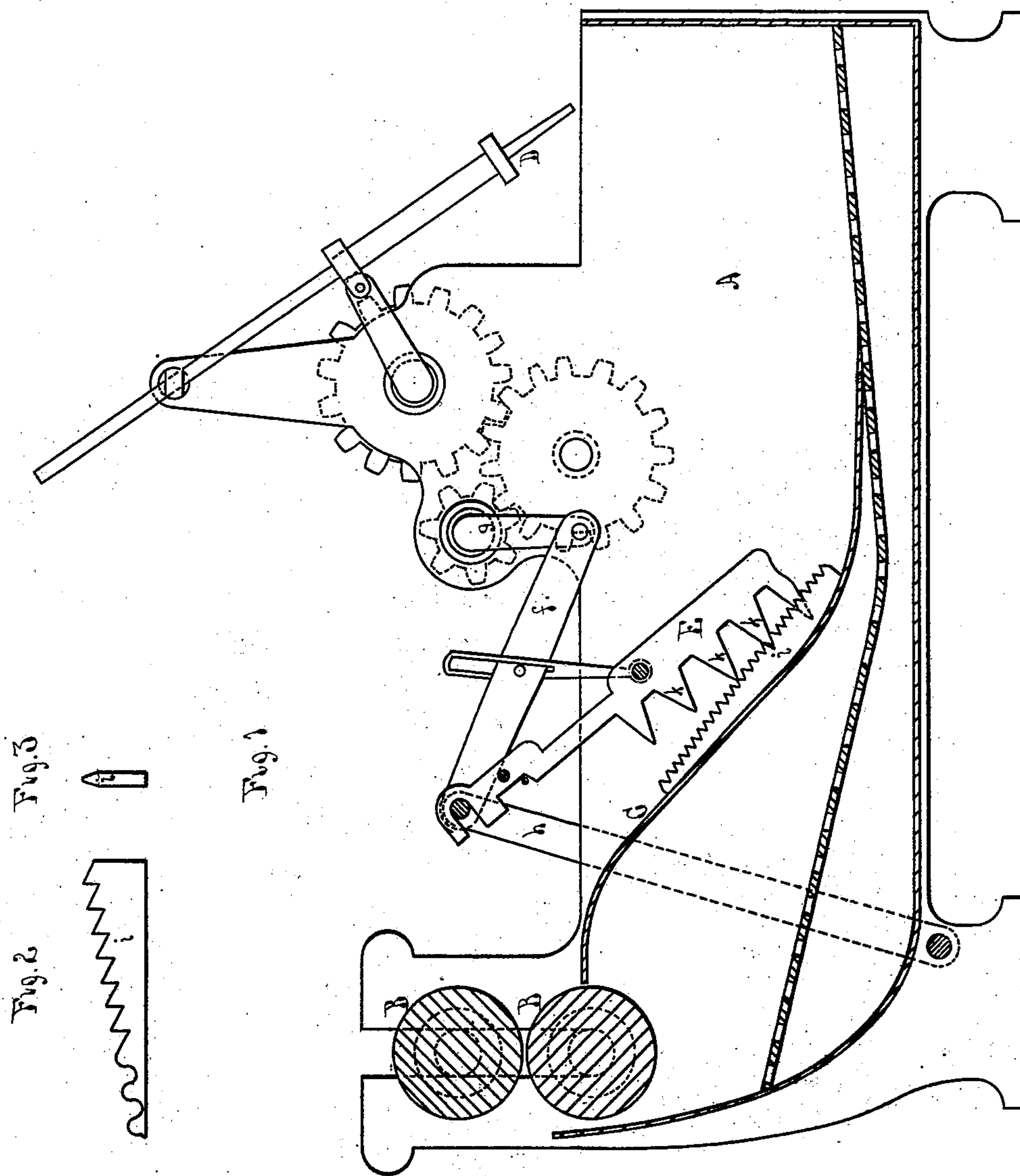


Fig. 3

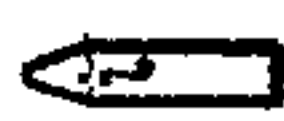


Fig. 2

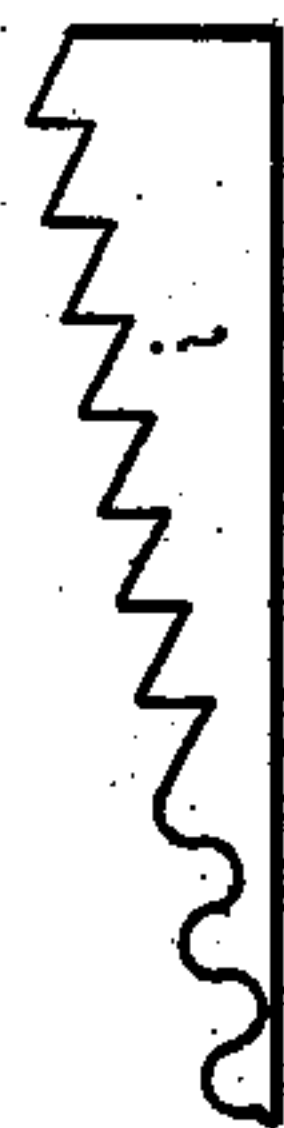


Fig. 1

Witnesses

Amos Brown.
W. F. Welch.

Inventor

Frederick G. Sargent.
by Depue C. Rice
Attorney

UNITED STATES PATENT OFFICE.

FREDERICK G. SARGENT, OF GRANITEVILLE, MASSACHUSETTS.

WOOL-WASHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,152, dated July 20, 1880.

Application filed February 24, 1879.

To all whom it may concern:

Be it known that I, FREDERICK G. SARGENT, of Graniteville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Wool-Washing Machines, of which the following is a specification.

My invention relates to that class of machines in which a vat or bowl containing the scouring or cleansing liquor is provided with a carrier and fork mechanism for carrying the fiber through the liquor and toward the squeezing-rolls.

The invention consists in giving the carrier which takes the wool forward and upward over an inclined table to the roll a greater speed or number of reciprocal motions in a given time than the fork which delivers the fiber to it, and in providing the inclined table up and over which the fiber passes with toothed ribs having edges in which the teeth are cut formed wedge-shaped.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a longitudinal vertical section of a machine embodying my invention. Fig. 2 is a side view of one of the ribs removed from the machine. Fig. 3 is a cross-section of the same.

A represents the tank or bowl which forms the body of the machine; B B, the squeeze-rolls; C, the curved or inclined table, extending upward from the bottom of the bowl to the squeeze-rolls.

D is the rake which stirs up the fiber in the liquor in the bowl and carries it forward to the carrier E, which carries it forward and upward on the inclined table to the rolls B B.

The carrier E is actuated by the crank g, the connecting-rod f, the rock-shaft h, or other suitable mechanism, so that it shall move more rapidly than the swing-rake D, from which it receives the fiber, thus tending to even out the bunches thrown forward by the rake D and present a more even sheet to the rolls B B, which, acting on the fiber presented in a more open and evenly-distributed manner, expels with the liquor more of the dirt

and other foreign substances than when they receive it more irregularly.

i is one of the ribs, with a waved or serrated edge upon it. Several of these are placed longitudinally upon the inclined table to prevent the fiber from slipping back into the bowl when deposited upon them.

To obtain the necessary strength for the ribs the metal used in their construction must be of a thickness greater than desirable or necessary for small teeth; and as a large number of small teeth, if of proper form, are better than a less number of large teeth, I make the edges of the ribs wedge-shaped and cut the teeth thereon. The manifest advantage of using these small teeth upon the ribs is that when the powerful action of the carrier comes upon the fiber it more readily leaves the teeth without injury and moves forward to the rolls.

What I claim as new and of my invention is—

1. In combination with rolls B B, bed C, and the rake D, the carrier E, constructed so that all its parts shall move in the same direction at the same time, and arranged to make a greater number of forward movements than the rake D, substantially as described.

2. In combination with the inclined table C, ribs reaching below the surface of the liquid in the tank, having teeth cut upon their wedge-shaped edges, substantially as described.

3. In a wool-washing machine, the combination of the rake D, inclined table C, rolls B B, and the carrier E, provided with connected teeth k k, arranged to carry the fiber forward over the table to the rolls with a greater number of movements than the fork, substantially as described.

4. The combination of the tank A, inclined table C, rake D, and carrier E, which moves the fiber or stock forward over the table faster than the fork moves it forward through the tank, substantially as described.

FREDERICK GRANDISON SARGENT.

Witnesses:

ARTHUR B. PLIMPTON,
ALLAN C. SARGENT.