

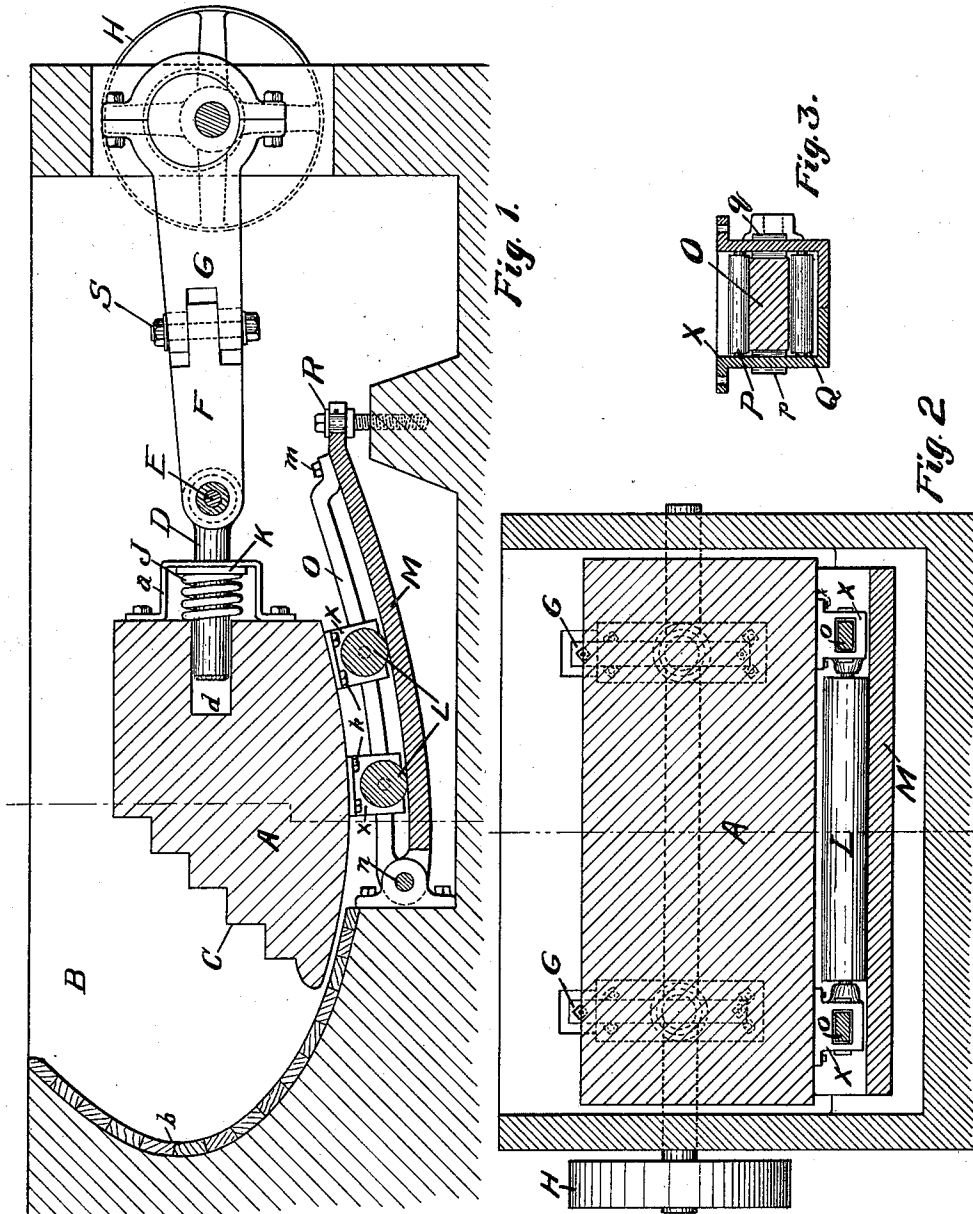
A. G. SCHULTZ & D. M. FULLER.

FULLING MACHINE.

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1,022,603.

Patented Apr. 9, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AUGUSTUS G. SCHULTZ AND DUNCAN M. FULLER, OF ALBANY, NEW YORK; SAID
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FULLING-MACHINE.

1,022,603.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed March 11, 1909. Serial No. 482,776.

To all whom it may concern:

Be it known that we, AUGUSTUS G. SCHULTZ and DUNCAN M. FULLER, both citizens of the United States, and both residing at the city of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Fulling-Machines, of which the following is a specification.

Our invention relates to fulling machines, and the object of our invention is to provide a fulling machine in which the hammer may be operated with little friction and adjusted to correspond with the work to be performed, together with such other elements and combinations as are hereinafter more particularly set forth and claimed.

We accomplish this object by means of the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a longitudinal section. Fig. 2 is a cross section. Fig. 3 is a detail sectional view of the box X.

Similar letters refer to similar parts throughout the several views.

A hammer, A, is placed within a tank, B. The nose, C, of the hammer in the operation of the hammer being forced toward the concave surface, *b*, of the tank B. The hammer is reciprocated in the tank, B, by means of a rod, D, pivotally connected at E to the forked arm, F, which in turn is secured to an eccentric strap, G, operated by the wheel, H, in any suitable manner. To the hammer, A, we secure a bracket, *a*, through which the rod, D, passes and on the rod, D, between the bracket, *a*, and the end of the hammer, A, we secure a collar, K, which forms a seat for one end of the spiral spring, J, on the rod, D. The other end of said spring rests against the end of the hammer A. The rod, D, enters a recess, *d*, in the hammer A.

The hammer, A, is supported by means of rollers, L, L, resting upon the adjustable plate M. The rollers, L, are mounted at each end in the boxes, X, X. Each of said boxes is connected with the hammer A by means of suitable bolts, *k*, or in any suitable manner. Through the boxes pass the guide rods, O, O, which are curved preferably to correspond with the plate, M, to which they may be attached by offsets and bolts, *m*, *m*, at one end and hinged as is the plate M, at *n*, at the other. Within the boxes, X, we

place the rollers, P, Q, above and below the guide rod, O, and the rollers, *p*, *q*, at the side of the guide rod, O. Thus in the movement of the hammer along the guide rod, O, there will be little friction, since the boxes are separated from the guide rod on all sides by rollers. By means of the bolt, R, passing through the plate, M, we may raise or lower one end of the plate, M, and therefore adjust the direction of the hammer A. We also connect the forked arm, F, with the eccentric strap G, by means of an adjustable connection, S, so that we may determine the direction of the hammer by regulating the plate M, and the length or extent of the movement of the hammer by means of the position of the adjustable connection S, as well as by the throw of the eccentric.

The spring J acts as a cushion and allows a certain resiliency in the operation of the hammer which permits more successful action on the goods in the tank than would be attained without such opportunity for a yielding at the time of the impact, and the opportunity for movement of the rod away from the hammer before the full extent of the exertion of the arm and rod is brought upon the hammer. It will be noted that the nose, C, of the hammer is irregularly formed, but we do not limit ourselves to any particular arrangement of the nose.

It is understood that we do not wish to limit ourselves to one hammer, as we may use one or more.

What we claim as our invention and desire to secure by Letters Patent is:

1. In a fulling machine, a hammer; a rod; a resilient means for connecting said rod to said hammer; a means for imparting reciprocal motion to said rod and hammer; an adjustable plate; rollers on said hammer resting on said plate; a means on said plate for directing the movement of and retaining connection with said hammer during its reciprocation.

2. In a fulling machine; a hammer; a means for imparting reciprocal motion thereto; supporting rollers; boxes connected with said hammer in which the ends of said rollers are journaled; a supporting plate for said rollers; means for guiding said hammer; rollers in said boxes in operative connection with said guiding means.

3. In a fulling machine; a hammer; guides on each side thereof consisting of

rods; boxes through which said rods, respectively, pass; rollers in said boxes on each side of said rods; two or more rollers extending across the hammer beneath the
5 same; means secured to said hammer for mounting said last mentioned rollers; an adjustable support for said last mentioned rollers.

In testimony whereof we have affixed our signatures in presence of two witnesses.

AUGUSTUS G. SCHULTZ.
DUNCAN M. FULLER.

Witnesses:

FREDERICK W. CAMERON,
LOTTIE PRIOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
