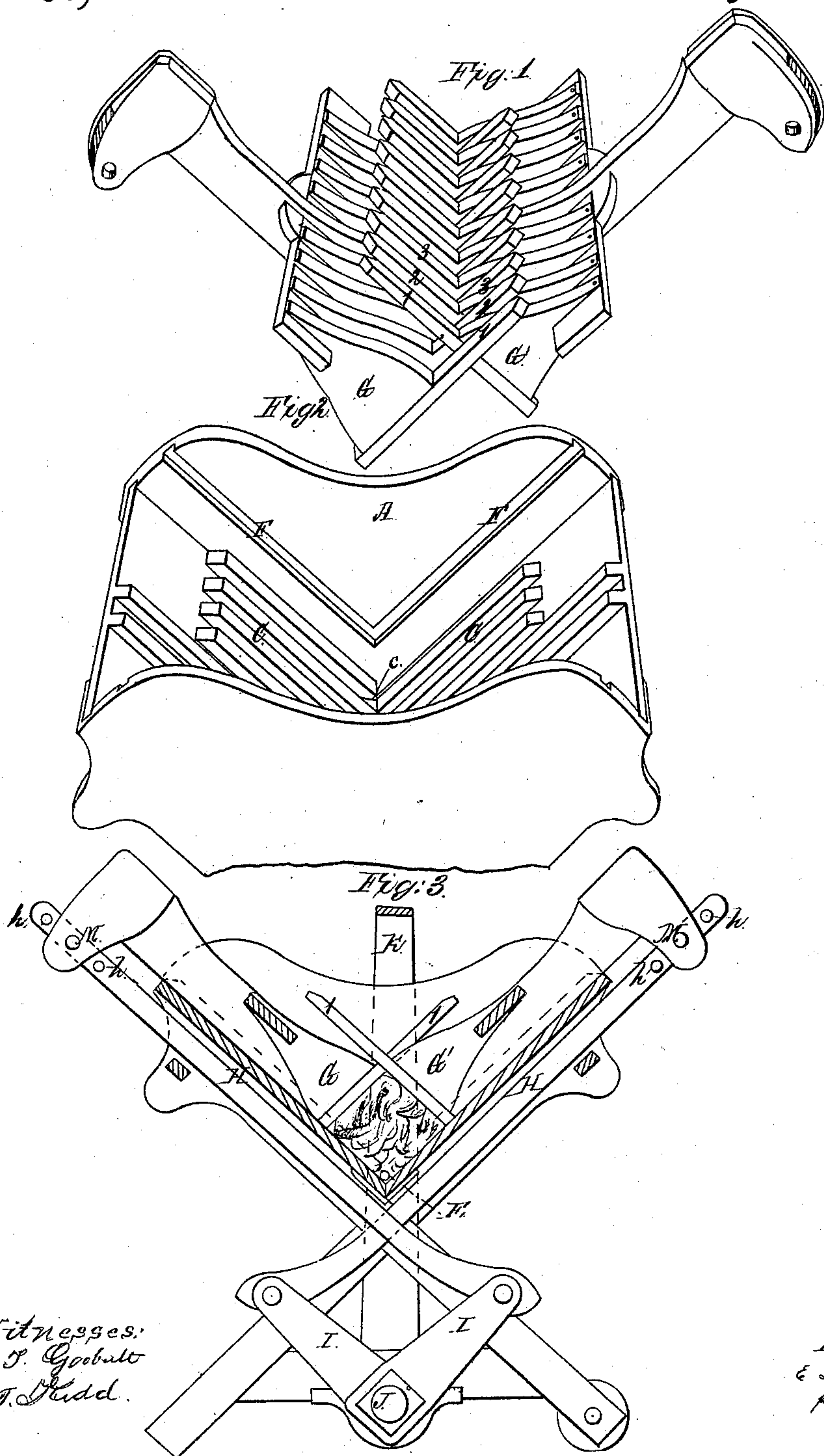


E. A. Hall,

Washing Machine.

N^o 33,081.

Patented Aug. 20, 1861.



Witnesses:
Jos. J. Goobals
E. J. Mudd.

Inventor:
E. A. Hall
per Kingley & Co.

UNITED STATES PATENT OFFICE.

E. A. HALL, OF JACKSONVILLE, INDIANA.

WASHING-MACHINE.

Specification of Letters Patent No. 33,081, dated August 20, 1861.

To all whom it may concern:

Be it known that I, EDWIN A. HALL, of Jacksonville, Switzerland county, State of Indiana, have invented a new and useful
5 Machine for Washing Clothes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

10 Figure 1 is a detached perspective view of the "rubbers" on moving parts of the machine. Fig. 2 is a view of the tub or trough. Fig. 3 is a longitudinal section of the machine complete.

15 A is an angular trough like box or tub, formed by two vertical and two sloping sides. The inner surface of each sloping side of the box has a series of parallel equidistant ribs C. The ribs on one side are opposite the spaces or grooves on the other.
20 Between the lower extremities of the ribs C and the extreme bottom or angle of the box, a small interval *c* is provided to allow of the emptying of the tub when desired by means
25 of a spigot E.

F are grooves in the vertical sides parallel with the sloping sides of the box for the purpose of guiding two plungers or "rubbers" G, G' similarly constructed as follows. A
30 series of fingers 1, 2, 3, &c., are attached rectangularly to a T shaped stock in such a position as for the fingers of one rubber to intermesh with those of the other when in the machine. From each rubber a pitman H
35 connects with an arm I projecting from a common shaft J, to which latter is attached a lever or handle K by which the machine

is operated. A loose pin M, and series of holes *h* in pitman H enable the adjustment of the rubber to work to any depth in the tub 40 desired, according to the bulk of the clothes under manipulation. The ribs C serve as guides for the fingers of the rubbers. They also elevate the clothes from the tub, and permit a free passage of water. 45

Operation: Disconnect one of the rubbers G from its pitman by withdrawing pin M, draw the rubber out of the box, insert the clothes and water, replace and connect the rubber and then vibrate the handle K so as 50 to alternately depress each rubber. The clothes floating partially in the water are thus alternately compressed in two different directions, the one at right angles to the other, the open character of the rubbers 55 allowing a free ingress and egress of water, and each continually intercepting the spray of the other thus preventing "slopping over." By withdrawing the spigot of the tub and then working the handle the ma- 60 chine can be made to act very efficiently as a wringer.

I claim as new and of my invention herein—

The arrangement of angular box A, ribs C, and alternate open rubbers G, G', the whole being combined and operating together as set forth.

In testimony of which invention, I hereto set my hand.

E. A. HALL.

Witnesses:

GEO. H. KNIGHT,
J. T. MELCHER.