

No. 713,763.

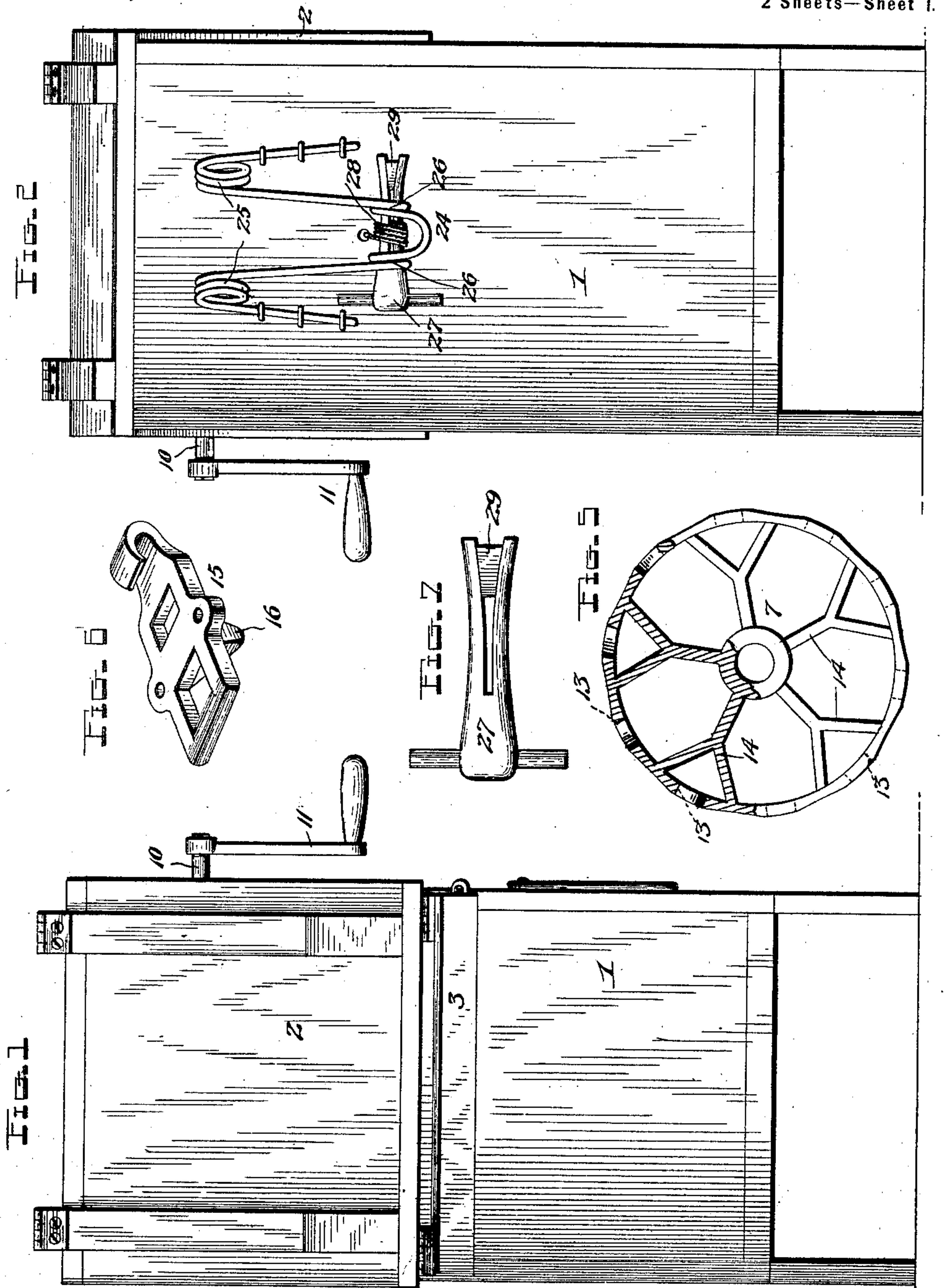
Patented Nov. 18, 1902.

W. H. HAYDON.
WASHING MACHINE.

(Application filed Apr. 7, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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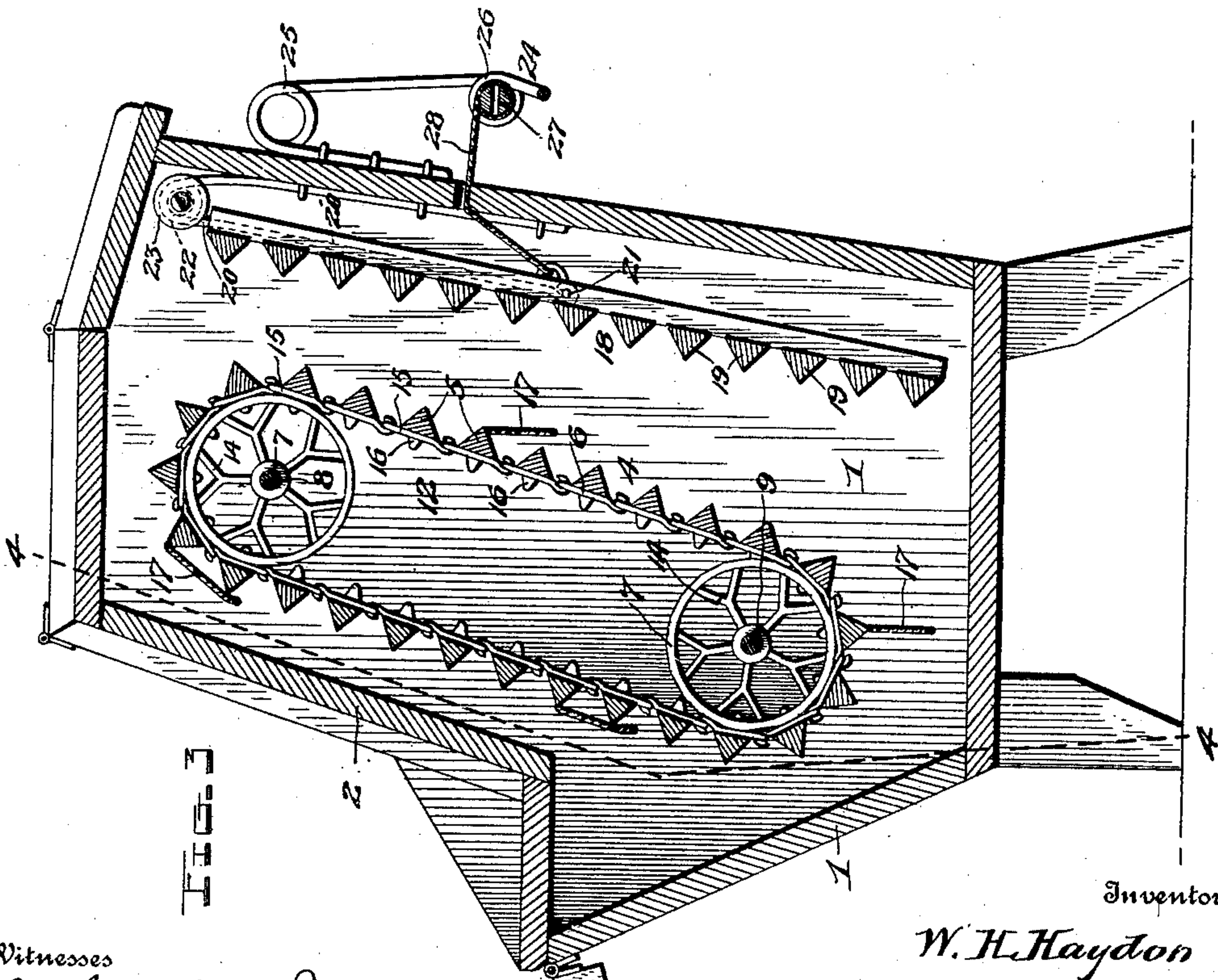
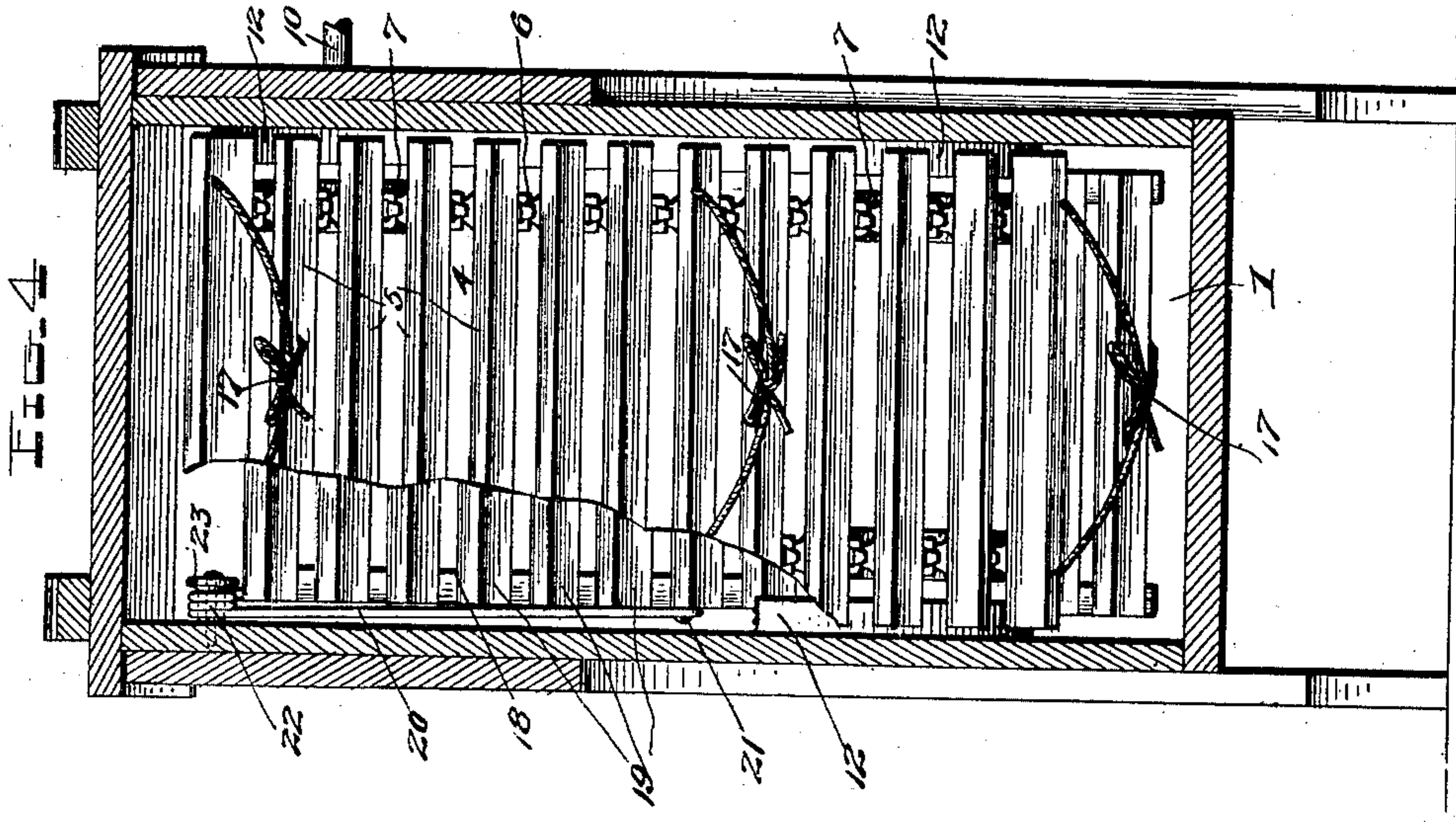
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY HAYDON, OF GALLINAS, TEXAS, ASSIGNOR TO W. H. RICE, OF GALLINAS, TEXAS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 713,763, dated November 18, 1902.

Application filed April 7, 1902. Serial No. 101,802. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY HAYDON, a citizen of the United States, residing at Gallinas, in the county of Atascosa and State of Texas, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in washing-machines of that kind employing an endless rubbing-belt and a coacting rubbing-board.

The object of the invention is to provide a washing-machine of this character which shall be simple of construction, durable and efficient in use, and comparatively inexpensive of production and one in which provision is made for the effective adjustment of the rubbing-board to secure a heavy or light rubbing action without injury to the clothes.

With this and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described, defined in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a washing-machine embodying my invention. Fig. 2 is a rear elevation thereof. Fig. 3 is a vertical longitudinal section. Fig. 4 is a vertical cross-section on about the line 4 4 of Fig. 3, showing a portion of the rubbing-belt broken away to expose the rubbing-board and one of the spring-arms. Fig. 5 is a detail view of one of the chain-wheels. Fig. 6 is a similar view of one of the chain-links. Fig. 7 is a detail view of the tension-key.

Referring now more particularly to the drawings, the numeral 1 represents the casing of the machine, which may be of any approved form and construction to suit the purpose and which is provided with a suitable door or cover 2, closing a doorway or opening of proper form and size for the insertion and removal of the clothes. At its front the casing carries a hinged bracket 3, adapted to

support a wringer and to be turned up or down to adjust the wringer in or out of position for use.

Located upon the interior of the casing is an endless rubbing-belt 4, which comprises a series of transverse slats 5, fixed to the links of two side chains 6, which pass around wheel 7, mounted upon upper and lower shafts 8 and 9, which shafts are suitably journaled upon the side walls of the casing and one of which has an exteriorly-projecting end 10, adapted to receive a crank-handle 11, whereby the belt may be operated. The ends of the slats traverse suitable guides 12, formed or provided upon the sides of the casing, by means of which the two stretches of the belt are maintained in proper operative relation. Each sprocket-wheel 7 is of novel construction, being provided in its rim at regular intervals with openings 13 and having Y-shaped spokes 14, the bifurcated or branching ends of which afford a stronger connection with the rim of the wheel and correspondingly increase the strength of the wheel. The links 15 of each chain are provided with teeth or projections 16, which enter said openings 13 and insure a positive connection between the chain and wheels, thereby preventing slipping and undue wear and tear and at the same time insuring ease of operation. The belt is provided with loops 17 for securing the clothes thereto.

A rubbing-board 18 is located between the rear stretch of the rubbing-belt and rear wall of the casing and is provided with slats 19, spaced similarly to the slats on the belt. This board coacts with the belt to effect the washing of the clothes and is supported by a pair of spring-arms 20, to which the board is pivoted at 21, said spring serving to press the board toward the rear or working stretch of the belt 4 to exert the desired degree of pressure and rubbing action on the clothes. The pivotal connection of the board with the spring-arms adapts the board to accommodate itself to irregularities in the bunching of the clothes, character of the material, and shape of the garments, while it is also permitted by the resiliency of the arms to exert a yielding pressure on the clothes. As shown, the upper ends of the arms are formed with coils 22,

which engage spools 23, suitably mounted upon the side walls of the casing, and said arms are fastened to the rear wall of the casing in any preferred way.

5 In order to regulate the pressure of the rubbing-board under the action of the spring-arms, I provide a tension-regulating device consisting of a spring 24, having spring-coils 25, which normally force the free end of the
10 spring away from the casing. The said free end of the spring is bent or coiled to form bearing-loops 26 to receive a tension-key 27, to which is attached a cord 28, extending through an opening in the rear wall of the
15 casing and connected to the rubbing-board, whereby when the key is turned to wind up the cord thereon the board will be drawn backward against the resistance of the spring-arms 20. The key 27 has a split shank, the
20 legs of which are normally pressed apart by the action of an interposed piece of rubber 29, which causes said legs to bind sufficiently against the loops 26 to hold the key in any position to which it may be adjusted. The
25 cord 28 is always kept taut by the resilient action of the spring 24.

In operation it will be apparent that the clothes are secured to the endless belt and washed by the rubbing action of the belt and
30 board when the belt is set in motion.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, operation, and advantages of my improved washing-ma-

chine will be readily apparent without re- 35 quiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of 40 this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a washing-machine, the combination 45 of a casing, a rubbing-belt, a rubbing-board coöperating with the belt, springs for pressing the board toward the belt, a spring acting in opposition to the pressure-springs, a winding-key journaled in said spring, and a cord 50 connecting said key with the board, substantially as specified.

2. In a washing-machine, the combination of a casing, a rubbing-belt, a rubbing-board coöperating with the belt, springs for press- 55 ing the board toward the belt, a spring acting in opposition to the pressure-springs, a split winding-key journaled in said spring, means for expanding the legs of the key, and a cord connecting said key with the board, substan- 60 tially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM HENRY HAYDON.

Witnesses:

J. M. RICE,

H. G. MARTIN.