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J. WELCH & S. R. MINNICH.
WATERING DEVICE FOR CONCRETE BLOCKS.

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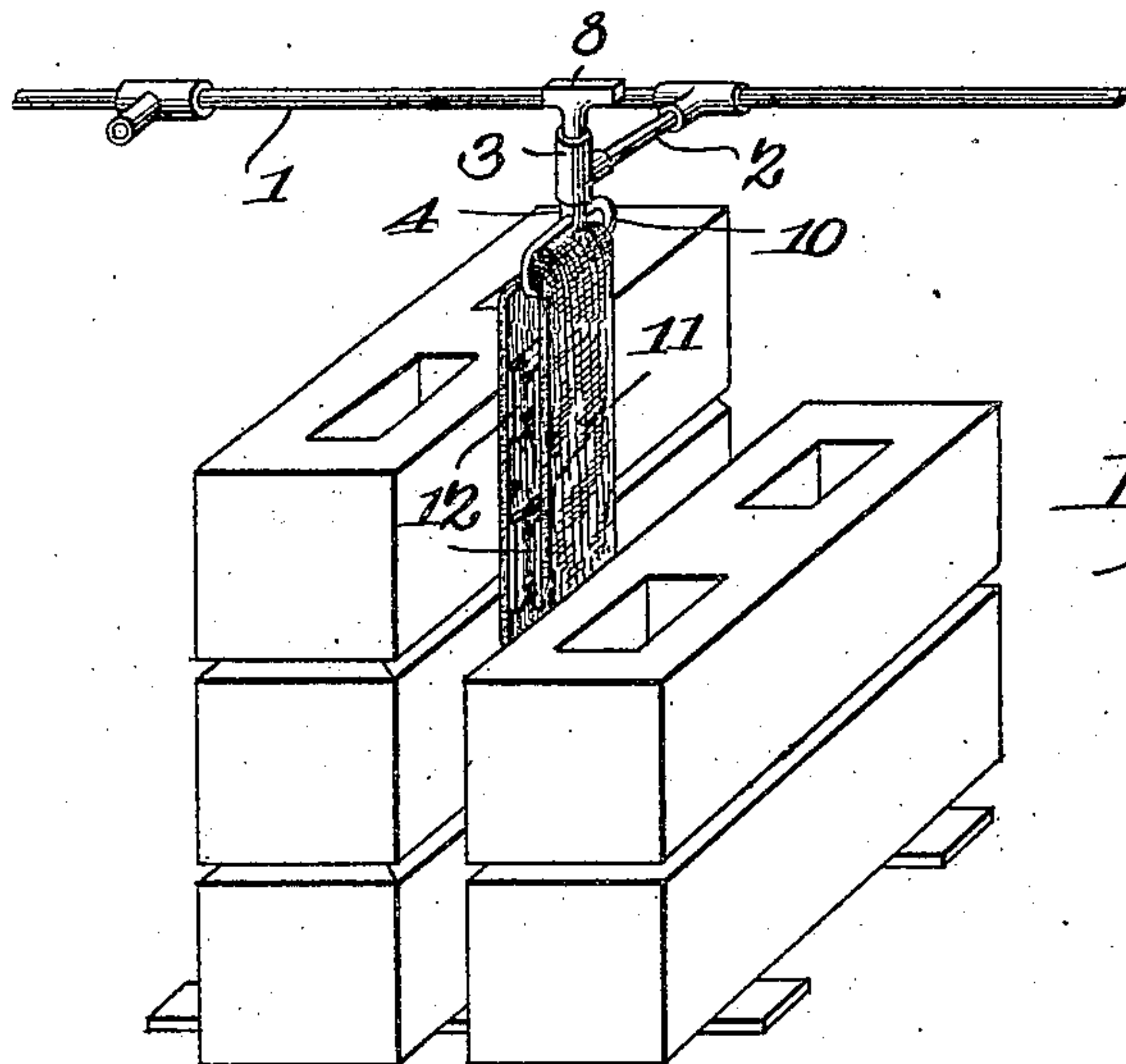


Fig. 1.

Fig. 2.

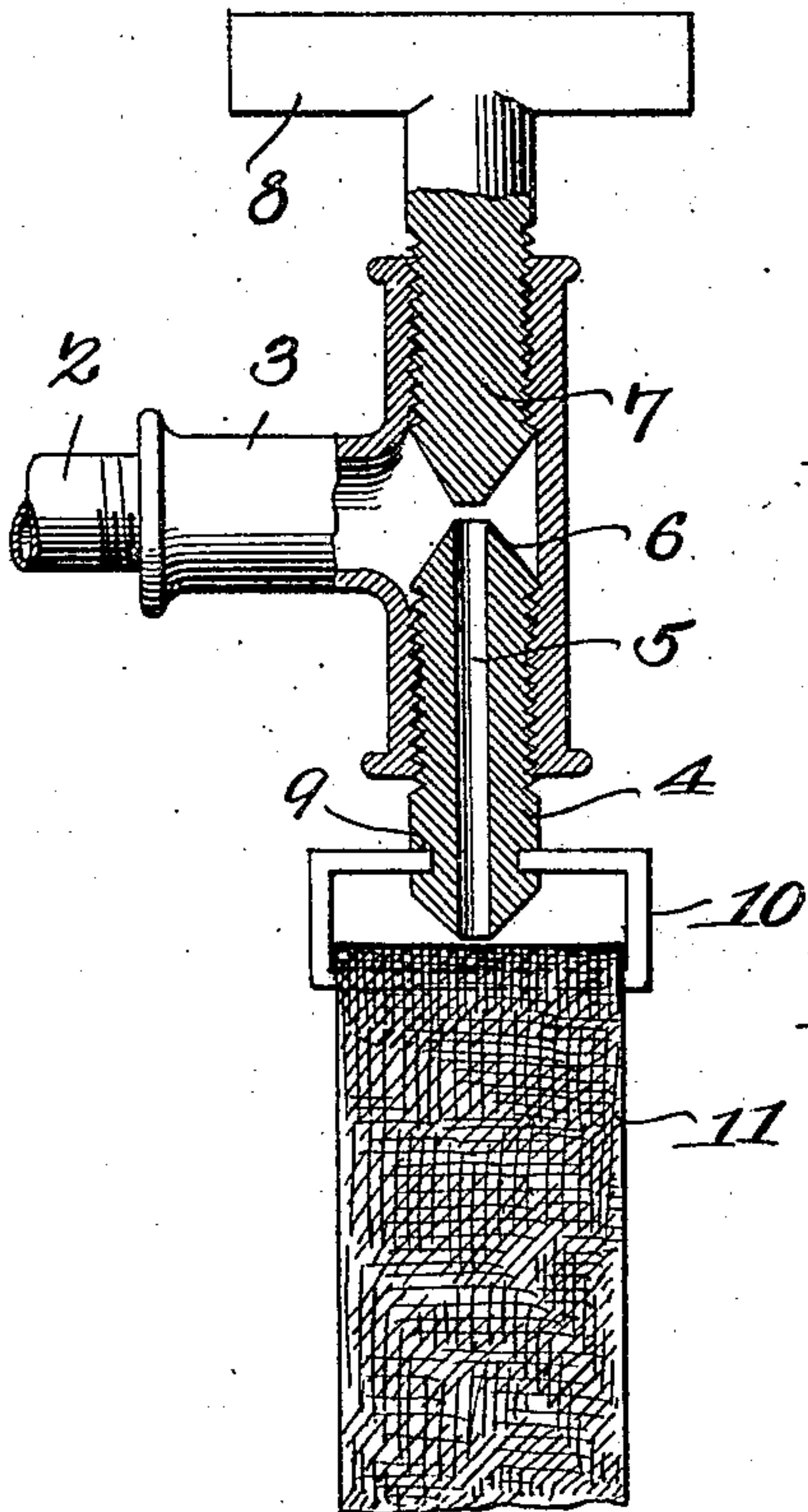


Fig. 3.

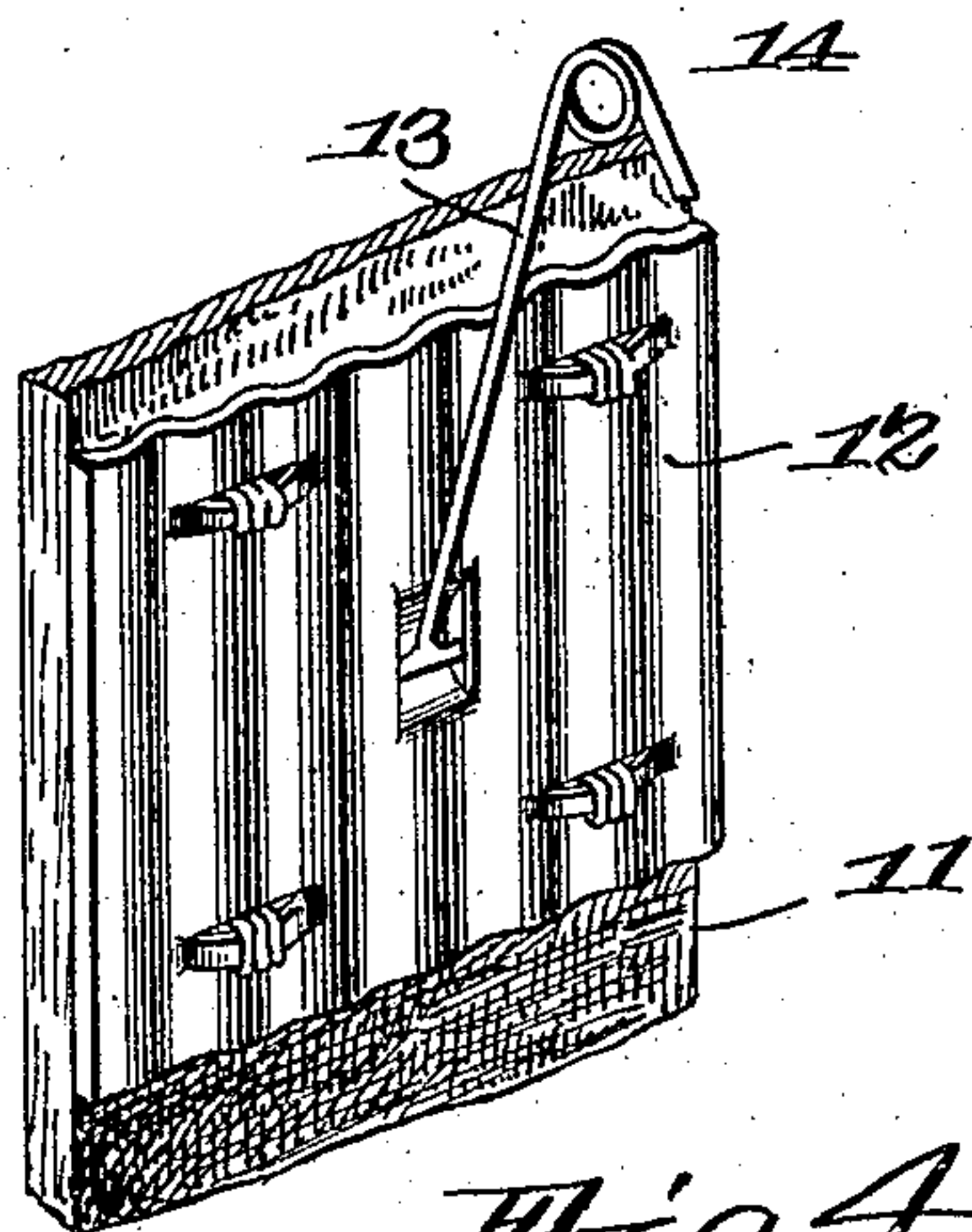
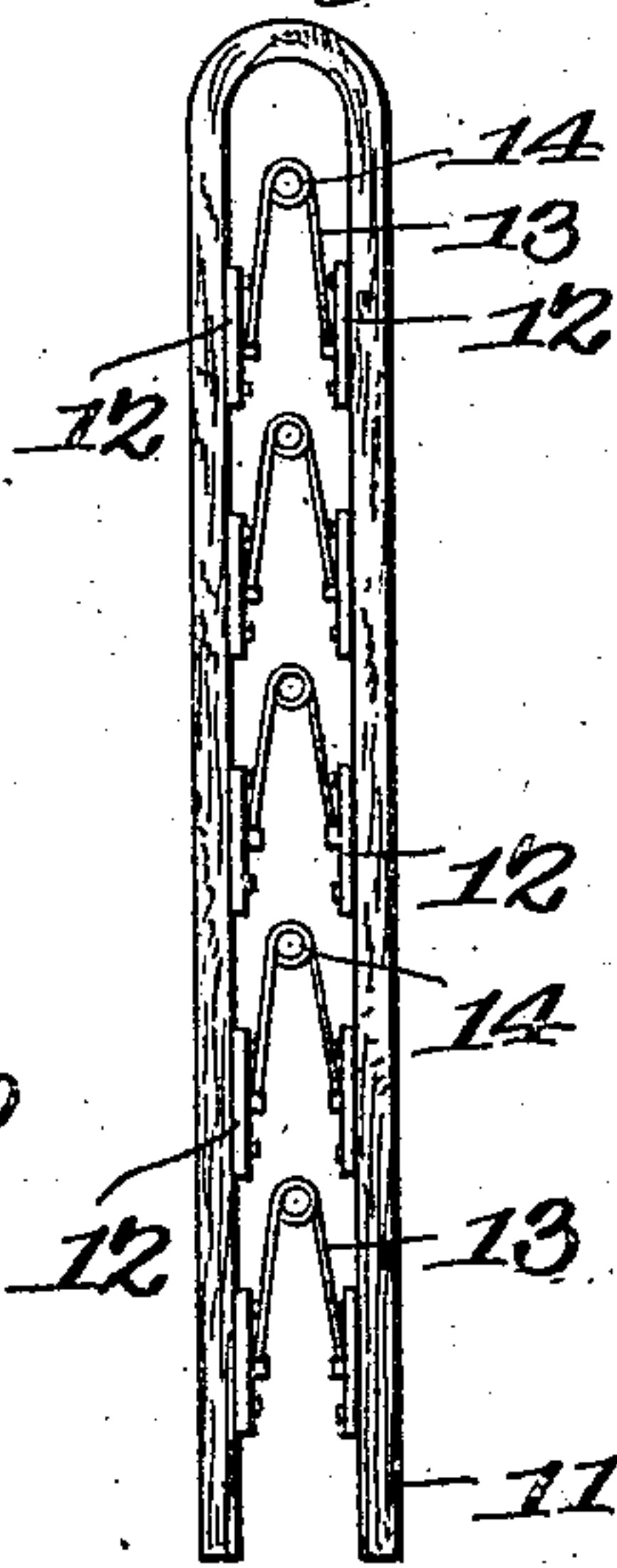


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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WATERING DEVICE FOR CONCRETE BLOCKS.

No. 848,276.

Specification of Letters Patent.

Patented March 26, 1907.

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To all whom it may concern:

Be it known that we, JOSEPHINE WELCH and SAMUEL R. MINNICH, citizens of the United States, residing at Nicholasville, in the county of Jessamine and State of Kentucky, have invented a new and useful Watering Device for Concrete Blocks, of which the following is a specification.

This invention relates to method of and apparatus for moistening cement products; and its object is to provide a simple and compact means for conveying moisture to the objects while the same are being cured.

The invention consists of an improved method whereby an absorbent is utilized for supplying moisture by capillary attraction to products, said method embodying the employment of apparatus consisting of a water-discharge device from which is suspended a strip of absorbent material adapted to be hung between rows of blocks, &c., and provided with means whereby said material will be pressed firmly against the blocks. Water is adapted to be discharged in small quantities upon the absorbent strip and will be spread thereover by capillary attraction, and the moisture will thus be transferred to the blocks to facilitate the curing thereof.

The invention also consists of certain other novel features of construction and combinations of parts, which will be hereinafter more fully described, and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings, Figure 1 is a perspective view showing the apparatus used in connection with some blocks. Fig. 2 is an enlarged section through the water-discharging device and a portion of the absorbent strip in elevation. Fig. 3 is an edge view of said strip and the spreading means therein, and Fig. 4 is a detail view of a portion of one of the spreading means.

Referring to the figures by numerals of reference, 1 is a discharging-pipe having an outstanding portion 2, to the end of which is secured a T-joint 3, internally screw-threaded, and in the downwardly-extending member of this joint is threaded a plug 4, having a passage 5 therethrough, the inner end of the plug being conical in form, as shown at 6, and its other end being also preferably of the same form to constitute a nozzle. A threaded stem 7 projects into the upper member of

the joint and has a grip 8, whereby it may be readily rotated, and the lower end of the stem is preferably conical in form and is adapted to contact with the inner end of plug 4, so as to cut off the supply of water to said plug. Notches 9 are formed in opposite portions of the nozzle and constitute sides for the ends of the loop 10, which extends under the nozzle. This loop supports a long strip 11 of felt or other absorbent material, which is folded at its center and has corrugated plates 12 sewed or otherwise fastened to its adjoining faces at desired intervals. The plates of the two faces are arranged in pairs, and the plates of each pair are connected by spring-arms 13, extending from an integral coil 14. These arms serve to constantly exert an outward tension upon the plates, and the strip, as shown in Fig. 3, is in the position assumed when it is confined between the two rows of blocks.

The cement blocks to be cured are placed in parallel rows and are so positioned that the absorbent strips 11 can hang between the rows and will be pressed against the block by means of the spring-arms 13. Water is directed from the pipe 1 to the nozzle by turning stem 7, and this water will drop onto the absorbent strips and will spread throughout the length thereof by capillary attraction, and therefore the strips 11 present moist surfaces to the blocks and facilitate the curing operation. As a result of the peculiar construction of the discharge device the water can be entirely shut off or the flow can be increased or diminished, according to the desire of the operator.

This apparatus will thoroughly wet the blocks, and the strips can be applied to them as soon as the blocks have been molded, thereby moistening them at the most desirable period during the curing operation. As a result of this treatment the blocks will be made stronger and harder and more nearly waterproof, because of the perfect crystallization of the cement which results. The blocks can be cured in an open yard and do not require any attention after they have been stacked and the strips have been applied.

By corrugating the plate 12 the same is prevented from pressing too firmly against the absorbent strip and will not force a large quantity of water therefrom. It is to be un-

derstood that the plate may be corrugated in any direction, so as to present an irregular face to the strip. By forming the adjoining ends of the stem 7 a plug 6 conical in form is produced, in which sand and other solid particles may be collected, so as to not clog the passage 5. It is of course to be understood that the apparatus may be used for moistening any cement products, such as blocks, posts, &c.

What is claimed is—

1. The combination with a water - discharge device; of an absorbent suspended therebelow and adapted to absorb water discharged therefrom, and means for exerting a lateral pressure upon the absorbent.

2. The combination with a water - discharge device; of a folded strip suspended therefrom and adapted to receive the water from the discharge device, and resilient spreading means interposed between the folds of the strip.

3. The combination with a water - discharge device; of a folded absorbent strip suspended thereby and adapted to receive moisture therefrom, and resilient spreading devices interposed between the folds of the strips.

4. The combination with a discharge-nozzle and means for regulating the discharge of liquid therethrough; of a folded absorbent strip supported by the nozzle, and resilient spreading means interposed between the folds of the strips.

5. The combination with a discharge-nozzle and means for regulating the discharge of

liquid therethrough; of a loop engaging the nozzle, an absorbent strip folded upon the loop and adapted to receive moisture from the nozzle.

6. The combination with a discharge-nozzle and means for regulating the discharge of liquid therethrough; of a loop engaging the nozzle, an absorbent strip folded upon the loop and adapted to receive moisture from the nozzle and resilient spreading devices interposed between the folds of the strips.

7. The combination with a discharge-nozzle and means for regulating the discharge of liquid therethrough; of a loop engaging the nozzle, an absorbent strip folded upon the loop and adapted to receive moisture from the nozzle, plates secured to the adjoining faces of the strip, and spring-arms connecting the plates constituting resilient spreading devices.

8. The herein-described method of curing cement products consisting of stacking said products, suspending an absorbent therebetween, supplying moisture to the absorbent by capillary attraction and pressing said absorbent against the products while in a moist condition.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOSEPHINE WELCH.
SAMUEL R. MINNICH.

Witnesses:

CARRIE WOODWARD,
W. C. TUTT.