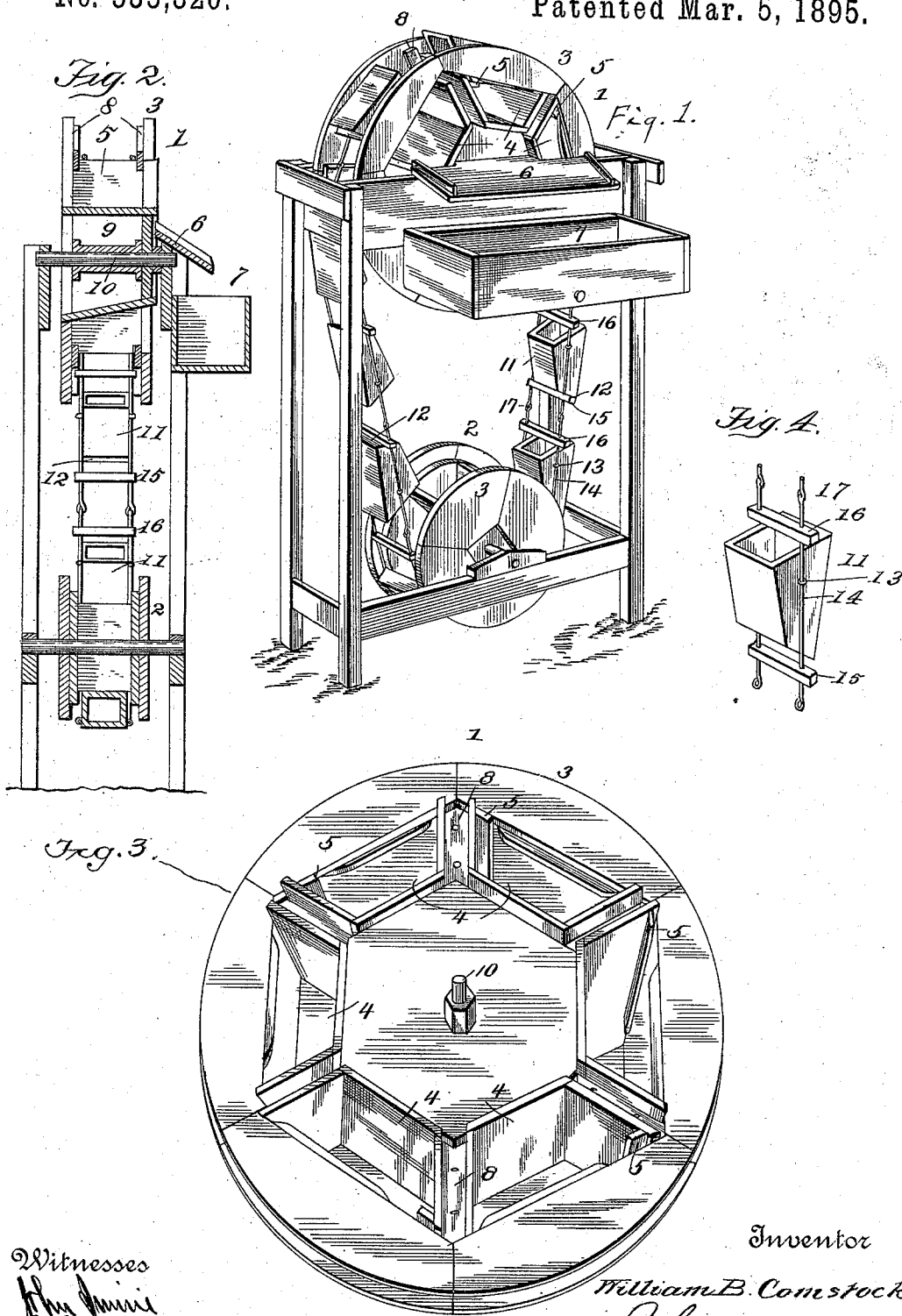


(No Model.)

W. B. COMSTOCK.
CONVEYER.

No. 535,320.

Patented Mar. 5, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM B. COMSTOCK, OF OAK BAR, CALIFORNIA.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 535,320, dated March 5, 1895.

Application filed September 12, 1893. Serial No. 485,357. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. COMSTOCK, a citizen of the United States, and a resident of Oak Bar, in the county of Siskiyou and State of California, have invented certain new and useful Improvements in Conveyers; and I do hereby 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 elevators adapted for raising water, gravel or other material, and for employment in connection with suitable motive power, such as steam engine, water wheel or wind wheel, or be used by hand power with small wheels.

The object of the invention is to provide efficient means for elevating water or other materials and depositing the same at an elevation in a suitable receptacle.

With this and other objects in view the invention consists of the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a conveyer embodying the invention. Fig. 2 is a sectional elevation of the upper and lower pulleys and the chains and buckets in position. Fig. 3 is a detail perspective view of the upper pulley with one rim thereof removed. Fig. 4 is a detail perspective view of one of the buckets and a portion of the chain links.

Similar numerals of reference are employed to indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the numerals 1 and 2 designate the upper and lower pulleys which have bearing in a suitable frame-work of any dimension, and said pulleys may be situated at such distances apart as to accommodate the work to be performed and the depth of the well or shaft with which they are used. Each of the pulleys 1 and 2 is supplied with rims 3 which stand beyond the peripheries of the main bodies of the pulleys and the upper pulley has mounted therein a series of dump-troughs 4 which incline toward one side and extend through one of the rims or heads. One side of each dump-trough is supplied with a guard-strip 5 at the top edge thereof, and adjacent to the said dump-trough

is a chute board 6 over which the projecting ends of the said dump-trough extend, the said chute-board being inclined outwardly from the upper pulley and situated over a receiving trough 7 which may be of suitable dimension and may extend away from the said upper pulley any suitable distance. The chute-board 6 is of a considerable length in order to catch all of the water or other material which is delivered from the dump-troughs 4 even after the latter have passed the center of position above the axis of the pulley and thereby permit the said dump-troughs to become thoroughly emptied and to deliver their contents to the said chute-board. The adjacent sides of the dump-troughs are mounted against arms 8 which support the rims 3, and said arms extend from central heads 9 which are fixed to the axis 10, such being the construction of the upper pulley, while the lower pulley is similarly supplied with the rims 3 as stated and the heads and axes.

Chain buckets 11 operate in conjunction with the pulleys 1 and 2 and are formed of upper and lower inwardly sloping ends 12, the bottom ends being closed and the upper ends open. The opposite sides of the upper portions of each of the buckets are supplied with eyes or loops 13 through which are passed link-rods 14, connected at the bottom to a cross-strip 15, and at the top to a similar strip 16, said strips 15 and 16 forming means for limiting the movement of the buckets on the linked rods 14 in the rising and falling movement of said buckets. The ends of the link-rods are connected to similar link rods in succession by loops 17, which permit of a flexible or hinged action of the buckets in traveling over the pulleys 1 and 2. The inner short sides of each of the buckets are of such dimension as to extend some distance downwardly into the dump-troughs when they pass over the pulley 2 and below the guard-strips 5 of the said dump-troughs. This operation causes the full contents of the buckets to be delivered into the dump-troughs and at the same time sufficient purchase is obtained on the buckets to continuously rotate the series of buckets, which form a belt against the resistance offered by the weight of the contents thereof and thereby prevent backward slipping. As the contents of the buckets are de-

livered into the several dump-troughs, dashing or spilling over from the said dump troughs is prevented by the guard strips 5.

The entire construction and arrangement 5 of parts as herein shown and described can be arranged in any suitable manner, either at an incline or vertically, and large or small to suit different purposes and different characters of work. The several parts may be constructed of either wood or metal, or a combination of these two materials, and it will be 10 seen that the device as a whole is especially adapted for use in connection with mines in relieving the latter of water or other matter 15 and conveying it to a distance therefrom. The buckets may be conveniently used in raising ore or gravel and are especially adapted for employment in grain elevators. The simplicity of the construction of the several parts 20 make the same easily handled and put up in operative position and the strength and compactness of the mechanism provide for a durable arrangement.

It is obviously apparent that many minor 25 changes in the construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

30 Having thus described the invention, what is claimed as new is—

In a conveyer of the character set forth, the combination of upper and lower pulleys each of which is supplied with rims which stand beyond the peripheries of the main 35 bodies of the same, and an upper pulley having a series of dump-troughs which incline toward one side and extend through one of the rims or heads, a guard strip at one side of each dump-trough at the top edge thereof, a 40 chute-board adjacent to one side of the upper pulley and over which the projecting ends of the said dump-troughs extend, the said chute board being inclined outwardly, a receiving 45 trough under the outer end of the said chute-board and an endless chain mounted over the pulleys and carrying a series of buckets formed with upper and lower inwardly sloping ends, and having loops or eyes on the upper portion of opposite sides thereof, through 50 which are loosely passed link-rods connected at the bottom to a cross-strip and at the top to a similar cross-strip, substantially as and for the purposes specified.

In testimony whereof I have signed this 55 specification in the presence of two subscribing witnesses.

WILLIAM B. COMSTOCK.

Witnesses:

W. B. ROBERTSON,
WILLIAM HALNON.