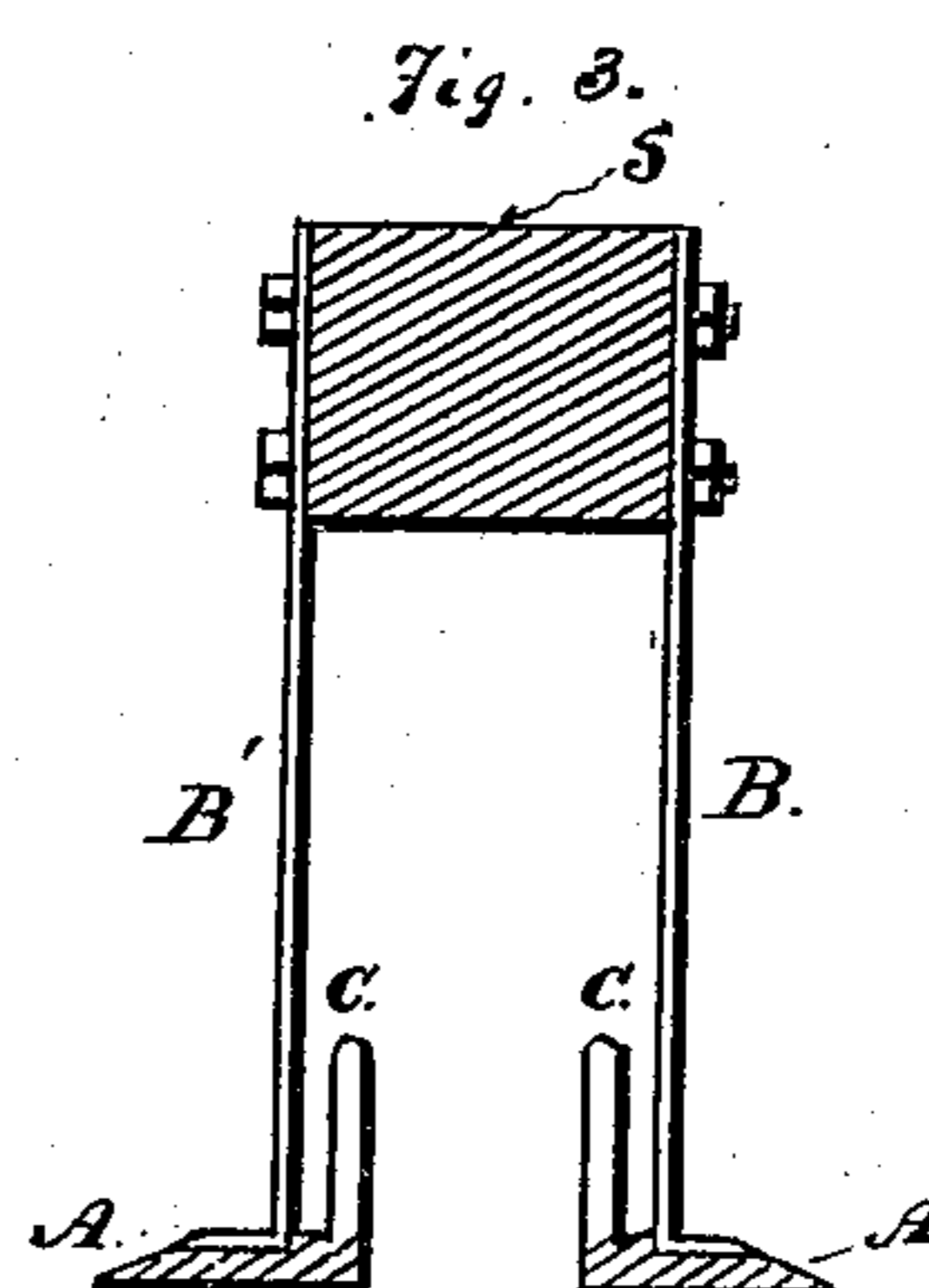
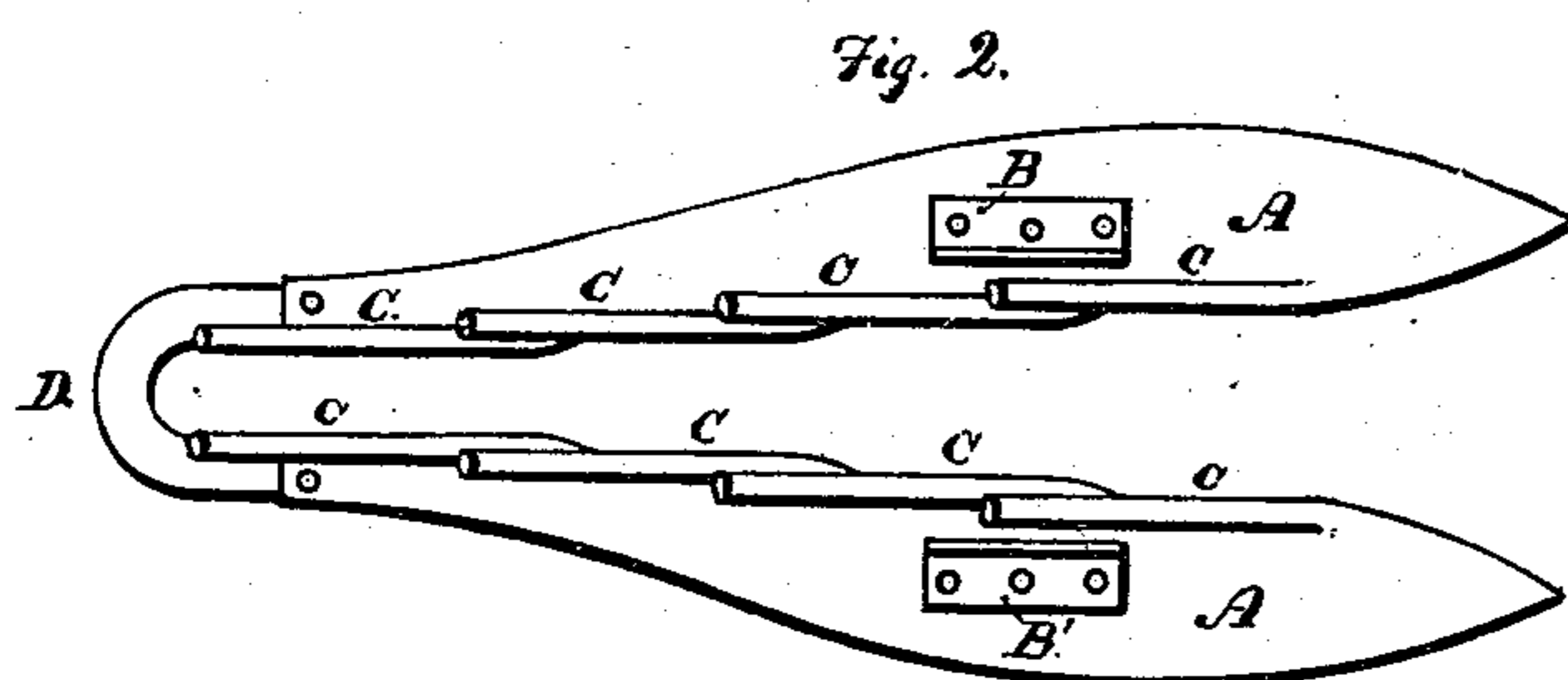
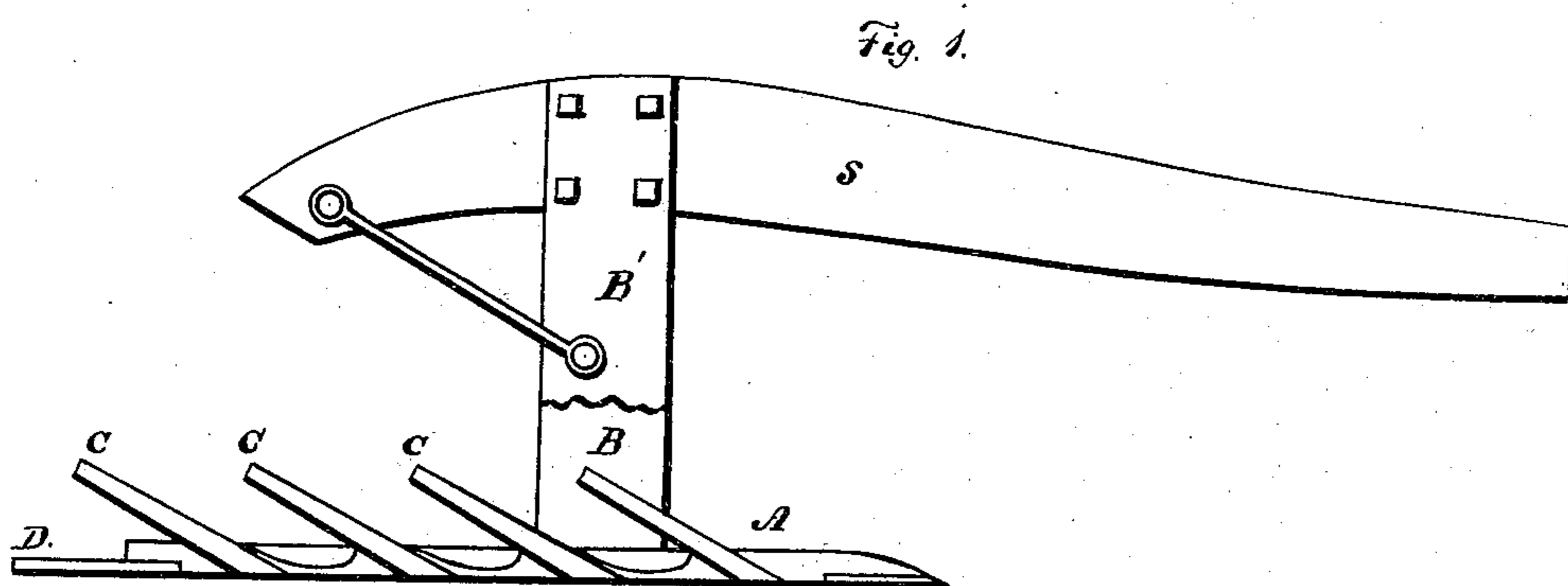


(No Model.)

H. B. MARTIN.  
BEET HARVESTER.

No. 504,423.

Patented Sept. 5, 1893.



Witnesses.

J. E. Harkness  
C. E. Harkness

Inventor  
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# UNITED STATES PATENT OFFICE.

HORACE B. MARTIN, OF CHINO, CALIFORNIA.

## BEET-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 504,423, dated September 5, 1893.

Application filed August 29, 1892. Serial No. 444,494. (No model.)

### *To all whom it may concern:*

Be it known that I, HORACE B. MARTIN, a citizen of the United States, and a resident of Chino, in the county of San Bernardino and State of California, have invented a new and useful Harvester for Pulling Beets, of which the following is a specification.

The object of my invention is to provide a harvester for pulling sugar beets, that shall be constantly adjusted by easy gradations to the several sizes of the beets, and to effect which I employ a series of lifters preferably of inclined planes shown in the accompanying drawings forming a part of this specification, in which—

Figure 1 is a side elevation of my improved beet plow, or harvester. Fig. 2 is a plan showing the lifting plates A A of the same with inclined projecting fingers C C, C C, their construction and adjustment relative to each other, and Fig. 3 is an end elevation partly in section, showing the supports B B attaching the lifting plates A A to a beam S.

The parts are described in severalty as follows:

A A represent a pair of horizontal plates with waving inner lines, having projections or fingers C, C, at their inner edges, and attached by firm supports B and B' to a plow beam S.

BB' are two supports, one of which is partly broken away connecting the plates A A with the beam S.

C, C, are fingers in parallel pairs set equidistant from each other on an incline backward to the line of motion on the inner edges of the plates A A and slightly tangent to the same.

D is a thin stiffening plate to prevent the lifting plates A A from spreading.

S is the frame to which the parts described are attached.

The horizontal plates A A are set at such an angle to each other that the foremost pair of fingers C C shall span the largest beets and the hindmost pair shall impinge against the smallest, leaving the lifting fingers C C parallel to each other in their respective pairs so that the entire convergency of the plates A A is equally divided between their several points of contact with the beets, reducing the force of impact and consequently the liability of abrasion to a minimum.

The device is set on wheels and to run about four inches deep, and is guided so that one of the plates A shall run on each side of the row of beets with the fingers C C, &c., in pairs projecting upward and backward. As it advances, each pair of fingers C C passes over every inch of the ground bringing a gradation to each beet corresponding to its size, and as nothing but an inclined plane can come in contact with the beet it rises with it,—the foremost pair of fingers raising the beet a distance equal to its perpendicular height and each succeeding one doing the same, continuous elevation and free clearance follow.

Having thus described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

1. In a beet harvester, the combination with a supporting frame of a series of lifting fingers arranged in pairs and differentially graduated as to width, substantially as described.

2. In a beet harvester, the combination with a suitable frame of a series of fingers arranged in pairs and inclined from front to rear, said pairs being of different width—substantially as described.

3. In a beet harvester, the combination with a suitable support of a series of lifting fingers arranged in pairs; the space between each pair being gradually lessened from front to rear of the machine—substantially as set forth.

4. In a beet harvester, the combination of a suitable support with a series of fingers arranged in pairs longitudinally of the machine, each pair of fingers being out of alignment with the other pairs, substantially as described.

5. In a beet harvester the combination with a suitable draft frame provided with down hangers of two horizontally arranged runners or supports connected with said down hangers and provided with two sets of upwardly and rearwardly inclined lifting fingers arranged in pairs with graduated spaces between said pairs, substantially as described.

HORACE B. MARTIN.

Witnesses:

T. E. WALKER,  
C. P. FENNER.