

(No Model.)

F. T. LA ROSE.

ELEVATOR BUCKET.

No. 288,581.

Patented Nov. 13, 1883.

Fig. 1

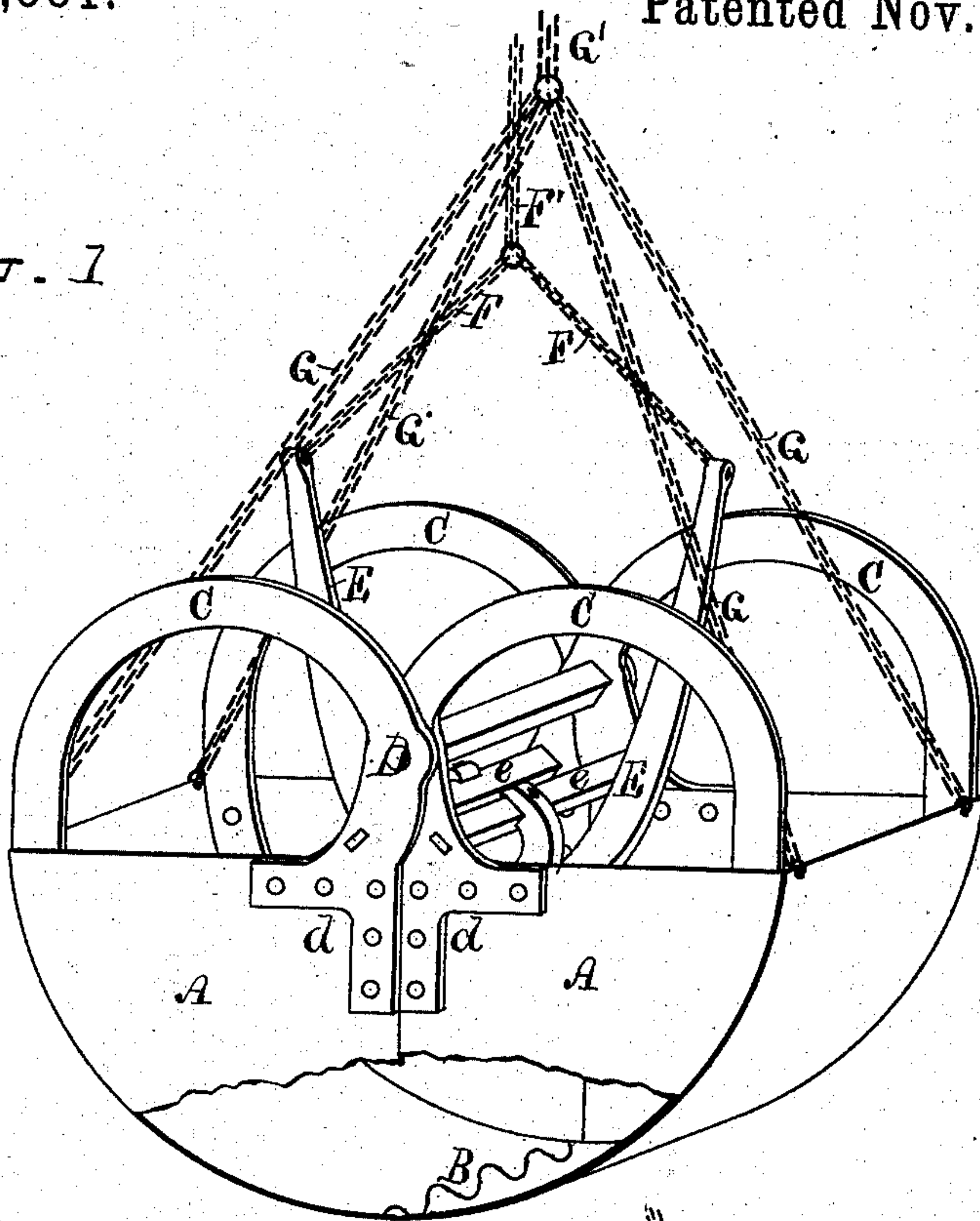
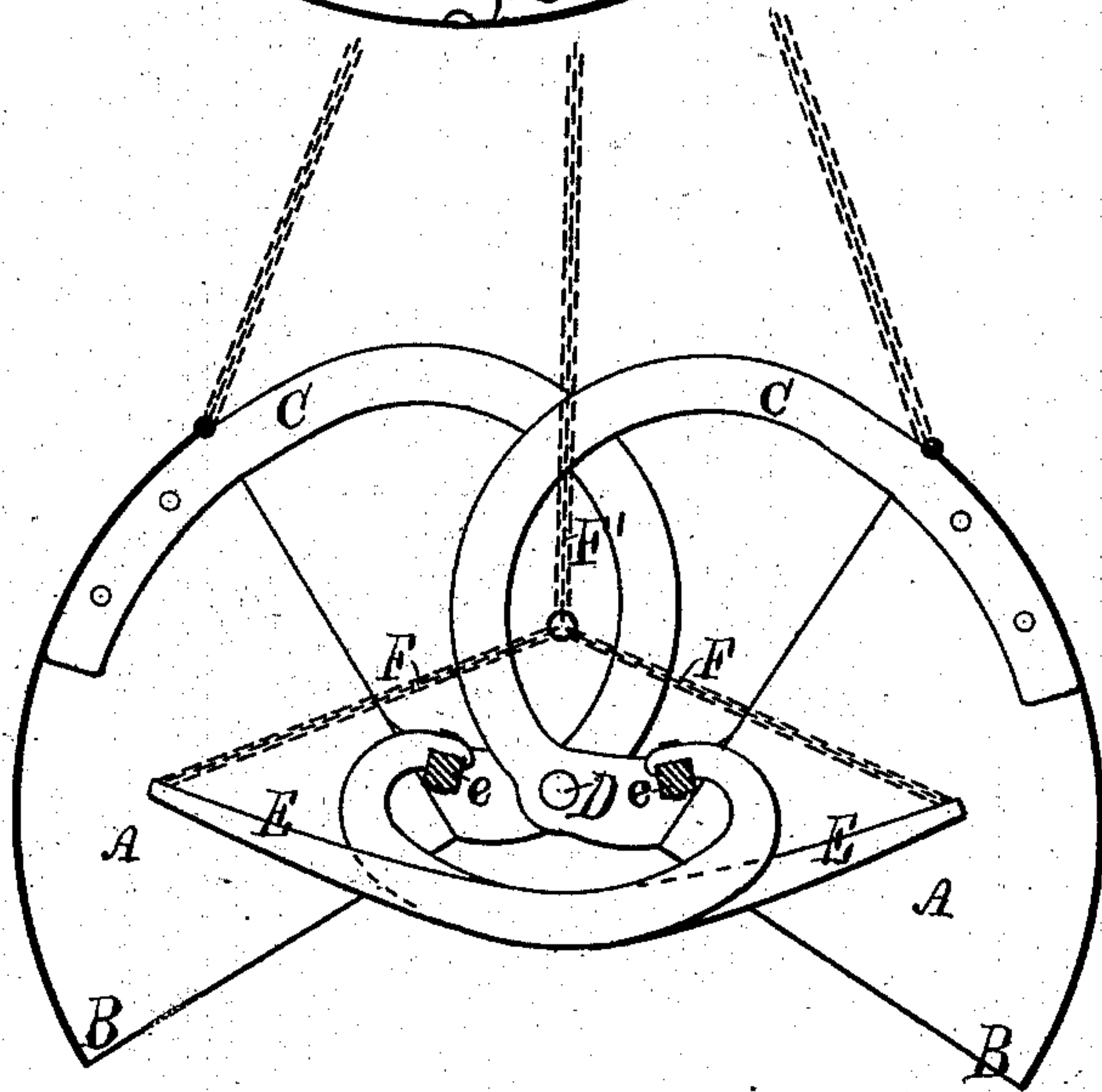


Fig. 2



WITNESSES:

C. H. Luther Jr.
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INVENTOR.

Frank T. La Rose
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Attys

UNITED STATES PATENT OFFICE

FRANK T. LA ROSE, OF PAWTUCKET, RHODE ISLAND.

ELEVATOR-BUCKET.

SPECIFICATION forming part of Letters Patent No. 288,581, dated November 13, 1883.

Application filed September 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK T. LA ROSE, of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Elevator-Buckets; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

10 This invention has reference to an improvement in the construction of buckets for elevating coal and other similar material; and it consists, first, in the peculiar and novel construction of the bucket, and, second, in the
15 peculiar and novel arrangement of the levers by which the bucket is closed, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of the improved bucket, showing the same supported
20 on chains in the act of hoisting. Fig. 2 is a sectional view of the bucket shown in the position when wide open, so as to enter the material.

In the drawings, A A are the two halves
25 of the bucket. B is the serrated interlocking joint, preferably made with the curved projections, which interlock when closed and facilitate the entrance of the bucket into coal or other loose material. C C are curved braces,
30 which form the frames of the bucket, to which the sheet metal is secured. The pivotal hinge D, connecting the two halves of the bucket, is formed in the curved braces C C, and the corners of the two halves are strengthened by
35 the angle-brace *d*, formed on the inner ends of the braces C C. The levers E E are secured to the bars *e e*, which are firmly fastened in the braces C C. The ends of the levers E E are united by the chains F F, to
40 which the chain F' is secured at the center. The levers E E are curved, as is shown in Fig. 2, and exert a powerful strain on the two halves of the bucket to close the same when strain is exerted on the chain F'. To the four
45 corners of the bucket the chains G G are secured, which unite in the main chain or cable G', by which the bucket is raised. When thus suspended, the central weight of the bucket and the material in the same would
50 open the bucket and discharge the material; but the strain exerted on the levers E E

counterbalances this tendency, and keeps the bucket closed. The pivotal hinge D is placed above the bucket. The bucket will open, therefore, much wider than when the hinge is
55 placed on the upper edge of the bucket, as is shown in Fig. 2.

The operation of the bucket in ordinary coal is as follows: When let down on a pile of coal, the weight of the bucket forces the
60 curved projecting points of the joint B into the pile and between the coal. When, now, strain is exerted on the chain F', the levers E E commence to close the bucket, and as this is resisted by the coal, the coal is scooped into the
65 two halves A A of the bucket. It is therefore apparent that the farther the two edges of the bucket are apart when open the more material will be taken up. As soon as the bucket is closed, the same is raised by the chain
70 G', and is kept closed by the chain F' until the bucket has reached the place where the material is to be deposited, when the chain F' is released and the material is discharged. Neither
75 latches nor clamps are required. All parts are simple in their operation, and not liable to get out of order.

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

1. The combination, with the halves A A
80 of the bucket, and the curved braces C C, constructed to form the side frames of the bucket, of the hinge D and the levers E E, constructed to close the bucket, as described.

2. The combination, with the halves A A
85 of the bucket, having the serrated joint B, of the curved braces C C, provided with the angles *d d*, and the hinge D, placed above the bucket, as described.

3. The combination, with the curved braces
90 C C, provided with the angles *d d*, and the sheet-metal bucket A A, secured to the braces, of the hinge D, placed above the upper edge of the bucket, the bars *e e*, secured to the braces, and the levers E E, the whole provided
95 with the chains F F and G G, as described.

FRANK T. LA ROSE.

Witnesses:

J. A. MILLER, Jr.,
M. F. BLIGH.

Record in Letters Patent No. 288,581

It is hereby certified that Letters Patent No. 288,581, granted November 13, 1883, upon the application of Frank T. La Rose, of Pawtucket, Rhode Island, for an improvement in "Elevator-Buckets," should have been issued to the said Frank T. La Rose and George H. Miller and Casimir Goyette, assignees of one-half interest in said invention; that the proper correction has been made in the files and records pertaining to the case in the Patent Office; and that the patent should be read with this correction therein to make it conform thereto.

Signed, countersigned, and sealed this 27th day of November, A. D. 1883.

[SEAL.]

M. L. JOSLYN,
Acting Secretary of the Interior.

Countersigned:

BENJ. BUTTERWORTH,
Commissioner of Patents.