

(No Model.)

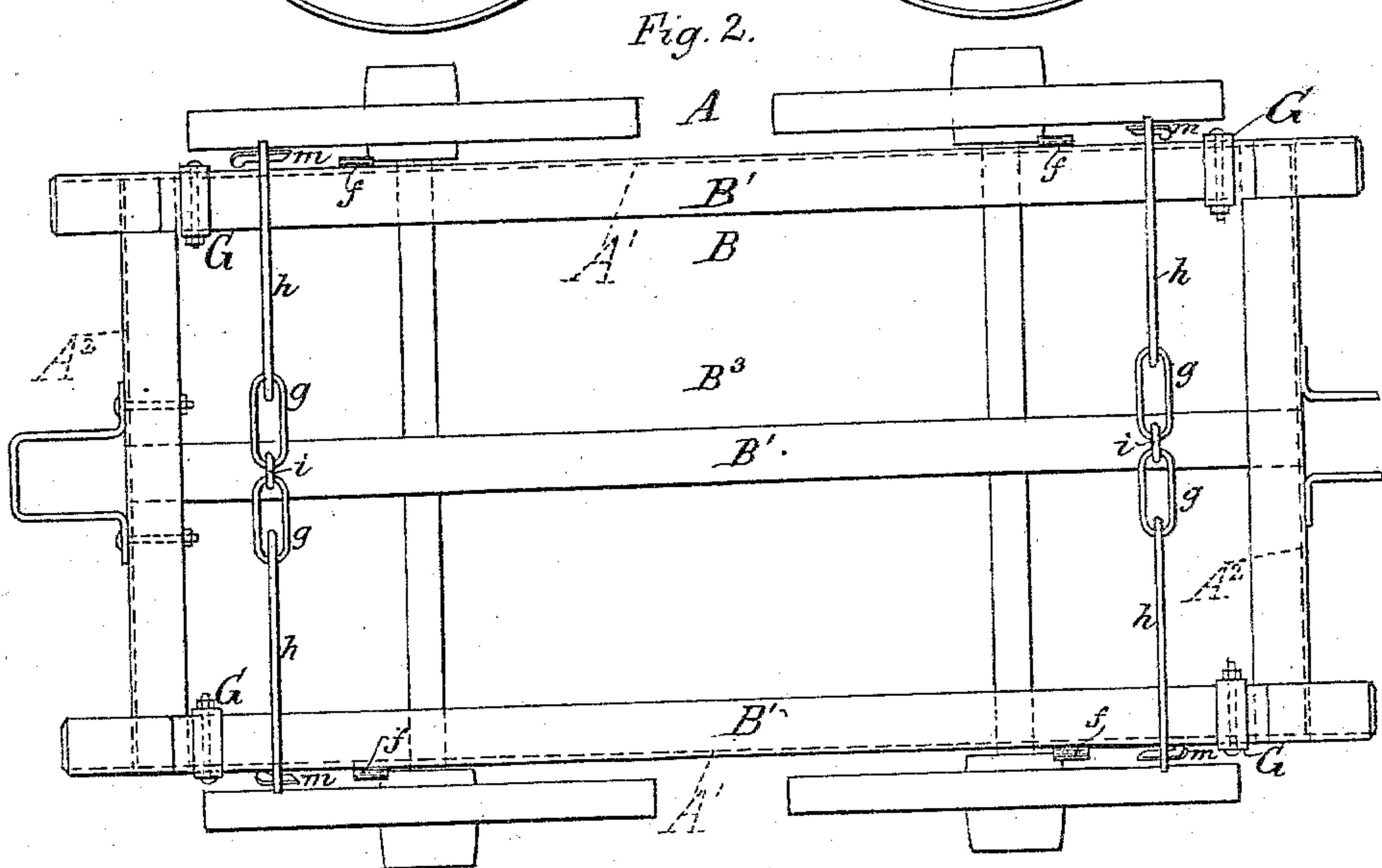
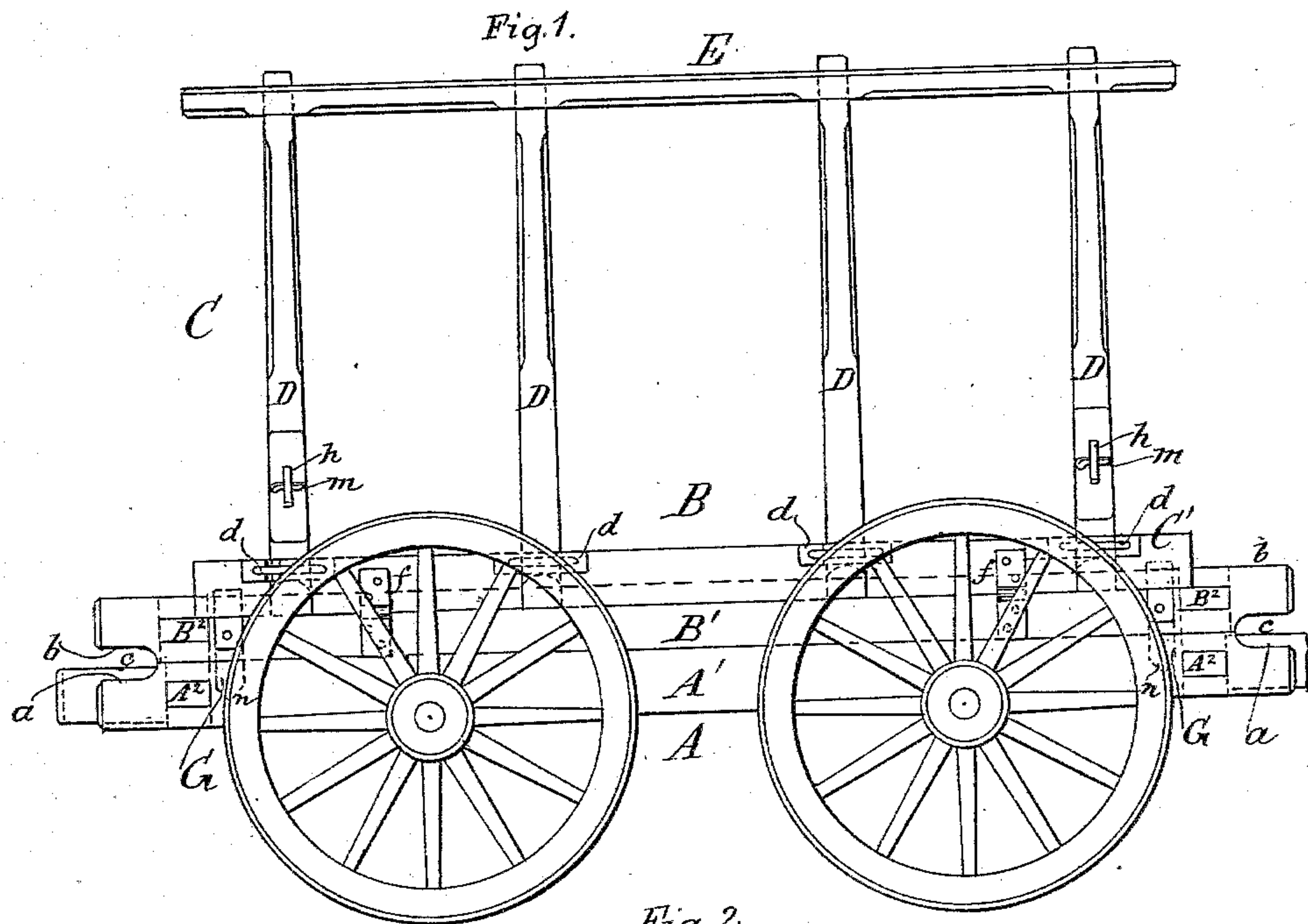
2 Sheets—Sheet 1.

T. BUENO, Jr.

WAGON FOR TRANSPORTING SUGAR CANE.

No. 295,107.

Patented Mar. 11, 1884.



WITNESSES

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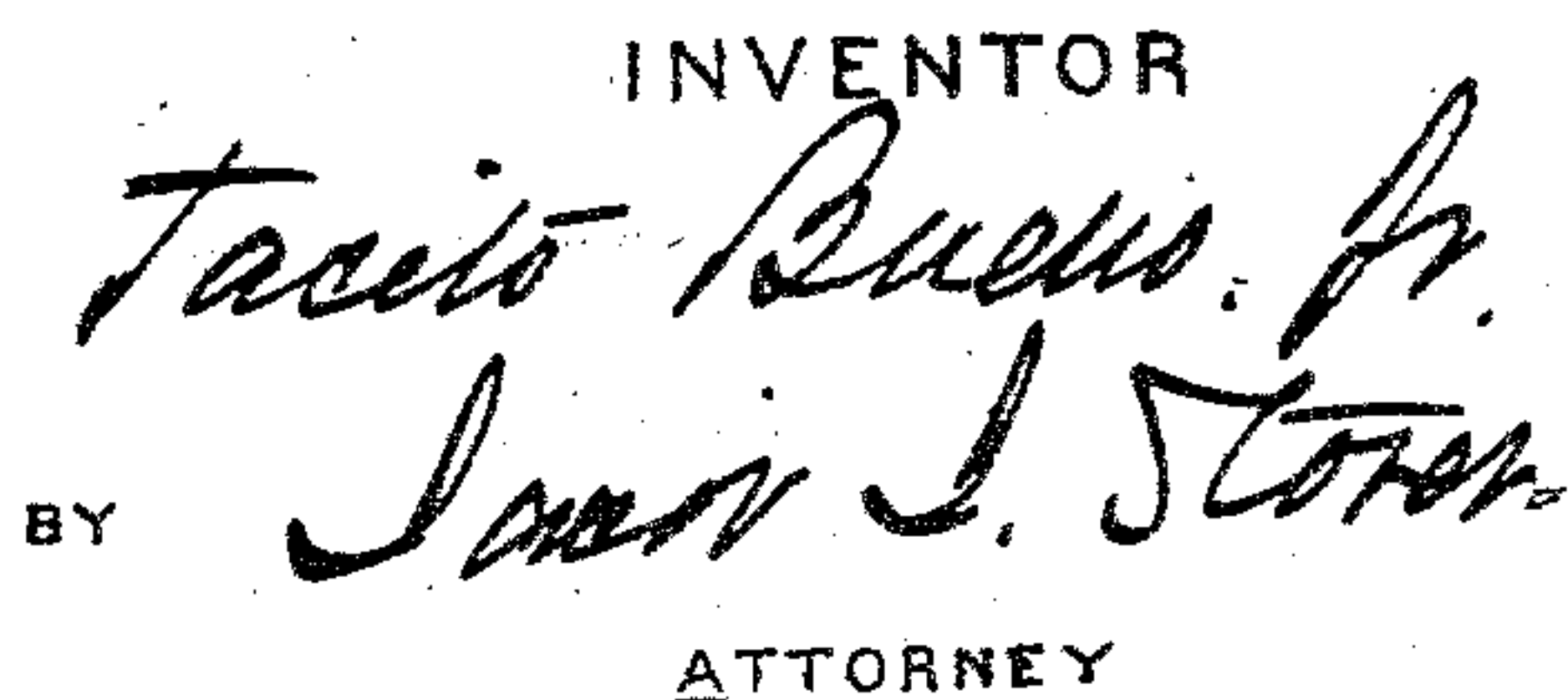
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2 Sheets—Sheet 2.

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Patented Mar. 11, 1884.





# UNITED STATES PATENT OFFICE.

TACITO BUENO, JR., OF NEW YORK, N. Y.

## WAGON FOR TRANSPORTING SUGAR-CANE.

SPECIFICATION forming part of Letters Patent No. 295,107, dated March 11, 1884.

Application filed July 9, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, TACITO BUENO, Jr., a citizen of Santiago de Cuba, Island of Cuba, and a resident of the city, county, and State of New York, have invented a new and useful Improvement in Devices and Methods for Transporting and Delivering Sugar-Cane, of which the following is a specification.

The object of this invention is to economize time and labor in the transportation and delivery of sugar-cane from the field to the mill. The common system or method of getting the cane from the field to the mill is to load the cane in the field into carts which are drawn by oxen or other animals to the mill, where the cane is unloaded or discharged by hand. This operation is slow, and as the season for such work is short the special necessity for quick work and the demand for extra laborers and vehicles make the cost of transporting and unloading cane an important item of expense.

My invention relates to an improved apparatus whereby the movement of the cane from the field to the mill is greatly facilitated; and it consists in the peculiar construction and arrangement of parts hereinafter described, and more particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of the specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a side elevation of my improved removable cart or wagon frame in place on a cart-body. Fig. 2 is a plan of the same with its sides removed. Fig. 3 is a reduced elevation, showing the removable frame suspended from a derrick. Fig. 4 represents an end elevation of the removable frame in place on a car-truck body. Fig. 5 is an enlarged elevation of a coupling-clamp in position. Fig. 6 is an enlarged elevation of the same on line *x x*, Fig. 5.

In the drawings, A represents the body of a cart or wagon adapted to receive the removable cart-frame B, the said cart-body A being composed, essentially, of longitudinal timbers A' A', held together by cross-timbers A<sup>2</sup> A<sup>2</sup>, and suitably secured on axles and wheels.

The bottom B<sup>3</sup> of my improved removable frame B is of oblong shape, and is constructed substantially of two or more longitudinal timbers, B', held together at their ends by cross-

timbers B<sup>2</sup>, the projecting ends of the timbers B' being slightly cut away on their inferior faces, as shown at *b*, to correspond with like cuttings or reductions *a* on the superior faces of the ends of the timbers A', so that open spaces *c* are formed between the ends of the timbers A' B'—when the frame B is in place—for the easy engagement of hooks, rings, or chains about the ends of the timbers B'.

The vertical sides C C of the removable frame B are preferably composed of timbers C' C', to which are secured, by fixed clamps *d* or other suitable fastenings, stakes D, whose upper ends are mortised into rails E, as shown. These sides C C are hinged, as shown at *f*, on the outside of the timbers B' in such a manner that they can be thrown down at a suitable angle, as indicated in dotted lines, Fig. 4, to form guides or chutes for supporting and directing the cane when it is discharged from the frame B to the mill or other place of deposit. Said frame-sides C C are held in an upright position during the loading and transportation of the cane by means of braces composed, preferably, of links and bars *g h*, respectively, that are secured by staples *i* or other suitable devices to the central longitudinal timber of the frame-bottom. The free ends of the bars *h*, slotted as shown at *k*, are entered through mortises *l*, formed in certain of the stakes D, and then keys *m* are driven into the slots *k*, outside of the stakes D, as shown.

Secured upon the side timbers, B', of the removable frame B, near the ends thereof, are coupling-clamps G, whose free ends *n* project downward on the inside of said timbers and below their inferior faces, so that when said frame B is on the cart-body A or car-truck frame H it is held in place against lateral movement by the engagement of the ends of said clamps G against the inside of the side timbers of either the cart-body A or car-truck frame H, as the case may be.

My method or system of transferring and transporting sugar-cane from the field to the mill also involves the laying of a track or railroad, I, to run the truck-frame H upon, said road I terminating at one end at the mill or other place of deposit, and at the other end at a location in the field convenient for the approach of the ox-carts. At this latter point I station a derrick, from whose arm K depend



chains L, having rings or hooks L' on their lower extremities. When a cart loaded with sugar-cane is driven up to the derrick, the chains L are lowered and the rings L' engaged 5 over the ends of the timbers B'. Then, by application of suitable power to the derrick, the frame B, with its load of cane, is lifted off the cart-body A and swung and deposited on the car-truck frame H, which latter is then 10 propelled with its load along the road I to its destined point. Then a side of the frame B being lowered, as indicated in dotted lines, Fig. 4, by the withdrawal of keys m, most or all of the cane discharges itself auto- 15 matically by its own gravity, while the rest may be quickly discharged by hand. Preferably the cane is discharged into or upon an endless belt or "cane-carrier," by which it is delivered directly to the rolls or cane-crush- 20 ing machinery. The rails on the delivery side of the road I, at the point of the delivery of the cane, are preferably set on a lower level than the opposite ones, so that the consequent canting or inclining of the truck-frame and 25 its load toward the point of delivery will facilitate the discharge of the cane. When a removable frame is unloaded of its cane, the side of it that has been thrown down is restored to and secured in its normal position, 30 and the truck is then run back to the derrick, by which the removable frame is then lifted from the truck-frame and placed on a cart-frame, to be taken again to the field for another load, and then in order a loaded removable 35 frame is taken by means of the derrick from a contiguous cart-body and deposited on the car-truck frame to be run to the mill, and in this manner the work is continued.

I am aware that it is not new to provide carts or wagons with removable racks having 40 their sides hinged so as to be incapable of being used as chutes, and that wagons having fixed bodies have had their sides constructed to be lowered so that they could be used as 45 chutes, and I therefore make no claim to that construction.

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

1. The combination, with a truck having a suitable frame and wheels, of a detachable 50 cart or wagon frame constructed, substantially as herein shown and described, with a rectangular bottom having vertical sides hinged thereto, adapted to be held in an upright po- 55 sition by suitable braces, and adapted by lowering to serve as discharge chutes or guides, said frame being provided with suitable clamps for coupling it to a cart or car truck body, as set forth.

2. The combination, with the frame-bottom 60 B<sup>3</sup> and vertical sides C C, of fastenings d, hinges f, braces g h, and coupling-clamps G, all constructed and arranged substantially as herein shown and described.

3. The combination, with the removable 65 cart or wagon frame B, constructed substantially as herein shown and described, and provided with the coupling-clamps G, of the cart or wagon body A, as set forth.

In testimony that I claim the foregoing as 70 my invention I have signed my name, in presence of two witnesses, this 23d day of June, 1883.

TACITO BUENO, JR.

Witnesses:

B. Z. BUENO,  
JACOB J. STORER.