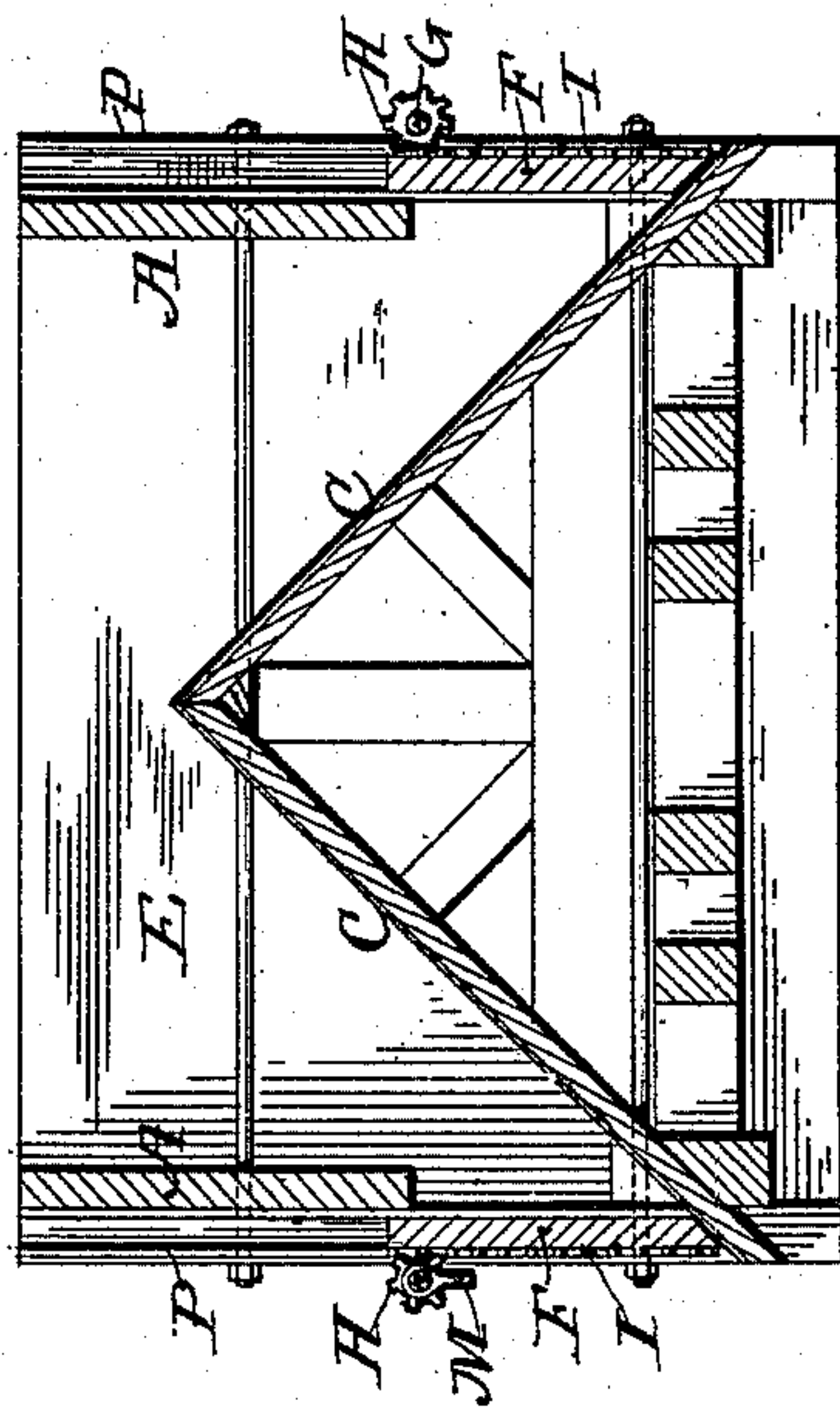
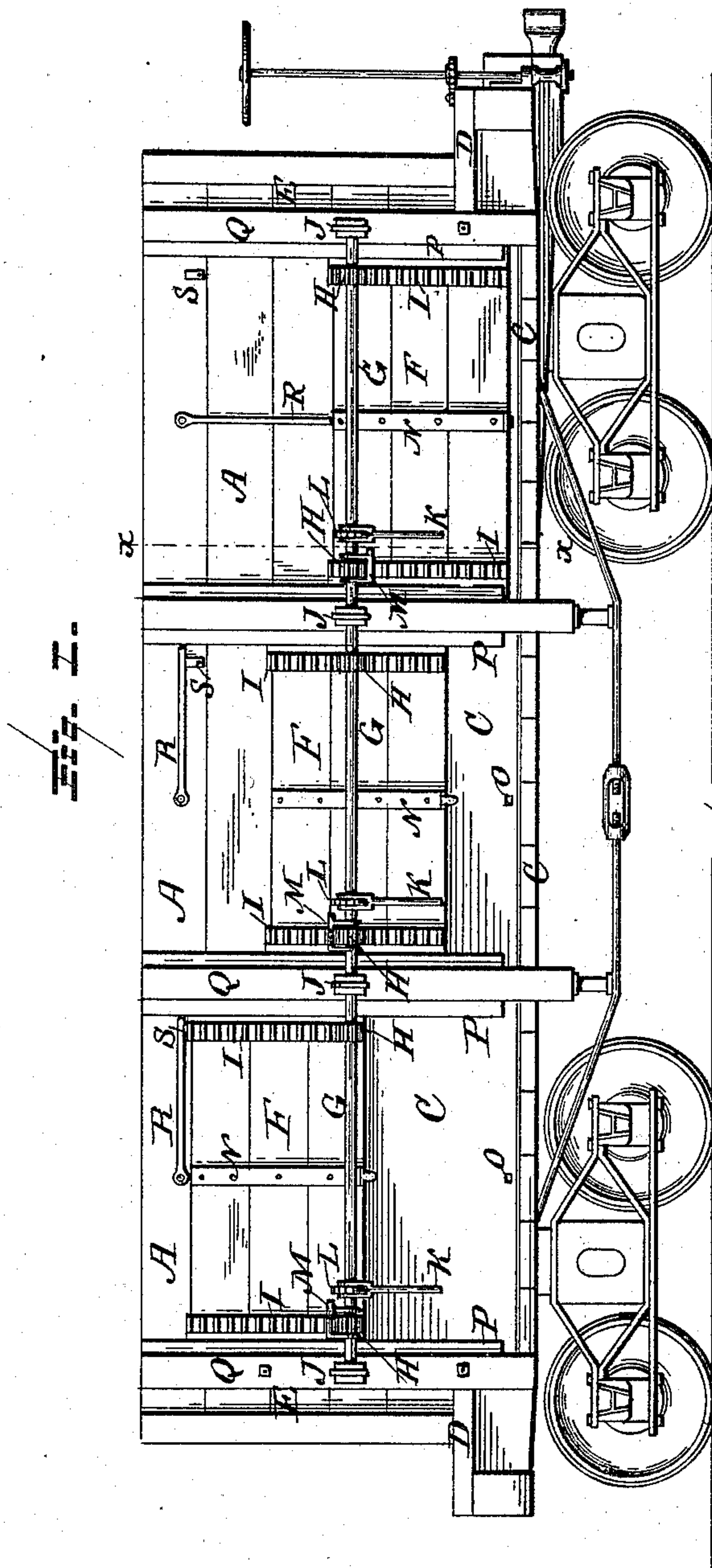


(No Model.)

S. W. BRADLEY.
DUMPING CAR.

No. 470,658.

Patented Mar. 15, 1892.



Witnesses

C. C. Schiller,
J. J. Masson

Inventor

Smith W. Bradley

By his Attorney

E. E. Masson

UNITED STATES PATENT OFFICE.

SMITH WHITNEY BRADLEY, OF SOUTH BUTTE, ASSIGNOR OF ONE-HALF TO
GEORGE LINDOFF, OF ANACONDA, MONTANA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 470,658, dated March 15, 1892.

Application filed July 24, 1891. Serial No. 400,524. (No model.)

To all whom it may concern:

Be it known that I, SMITH WHITNEY BRADLEY, a citizen of the United States, residing at South Butte, in the county of Silver Bow, State of Montana, have invented certain new and useful Improvements in Dumping-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to dumping-cars adapted to discharge their contents on both sides thereof, and my improvement relates to the peculiar construction and operation of the side doors and to the combination of devices that will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a dumping-car embodying my improvement. Fig. 2 is a transverse vertical section of the same on line *xx* of Fig. 1.

In said drawings, A represents the vertical sides of the car. The bottom of the car consists of two oppositely-inclined floors C, having their ridge centrally of the car and extending lengthwise thereof. The surface of the floors is preferably covered with sheet metal, and the lower edges of said floors C extend below the level of the end platform D of the car. The end-boards E stand vertically upon their edge and are firmly secured to the end-boards of the inclined floors and to the posts Q of the frame. On each side of the car are three doors F, adapted to be moved vertically in grooves between leading-strips P, secured to the post Q.

To the outer surface of the doors racks I are secured near each end thereof, and pinions H are made to mesh with said racks, said pinions being on shafts G, that are carried in front of the doors in bearings J, secured to the posts Q. To rotate the shafts G, each one has secured thereon a ratchet-wheel L, that is located between the branches of a ratchet-lever K, having one end loosely mounted upon said shaft and the opposite end adapted to be used as a handle to operate it, a spring-pawl being carried, as usual, by the lever K for engagement with the ratchet-wheel. Upon each shaft G is also mounted a U-shaped stirrup or catch M, loosely embracing the pinion H and adapted to be turned up for engagement

with the teeth of the racks I to retain the doors elevated at any desired point.

In the center of each door F there is attached vertically thereto an iron plate N, the lower end of which extends below the bottom of the door and is of suitable form to enter into an opening O, made vertically in the inclined floor adjacent to its lower edge, to sustain said door against internal pressure when the car is loaded. To prevent each door from rising on account of the internal pressure of the load and discharging the contents of the car while in motion latches R are pivoted to the sides A of the car above each door and have their lower ends adapted to rest upon the top edge of the door. When it is desired to unlatch the door before opening it, the latch is swung on its pivot into a horizontal position and its outer end is retained on a spring-catch S, secured to the side of the car.

To dump the contents of the car after the latch has been lifted and retained in a horizontal position, the ratchet-lever K is worked up and down by the attendant until the door is raised to the required height. The load will then generally discharge itself by its own gravity, and as the size of the opening under each door can be regulated the discharge of load can be at any desired rate of speed and its amount regulated also—as, for example, in ballasting railroads.

Having now fully described my invention, I claim—

1. In a dumping-car, the combination of a frame having a central ridge and inclined floors on each side thereof, vertical posts and grooves to vertically guide doors, with the doors F, racks secured thereto, a shaft horizontally carried in front of said doors, pinions and a ratchet-wheel upon said shaft, and a pawl-lever to rotate said shaft, substantially as described.

2. In a dumping-car, the combination of the inclined floor, the frame having vertical grooves, doors having their ends guided therein and racks secured thereto with a shaft horizontally carried in front of said doors and having pinions meshing with the racks, and a catch M, pivoted upon said shaft and adapted to engage with one of the racks, substantially as described.

3. In a dumping-car, the combination of inclined floors and the frame having vertical grooves with doors having their ends guided in said grooves and provided with a central
5 plate N, projecting below the lower edge of the doors into the floor, substantially as described.

4. In a dumping-car, the combination of the inclined floor, the frame having vertical
10 grooves, a door having its end guides in said grooves and racks secured to said door with

a horizontal shaft in front of said door, pinions upon said shaft and in engagement with said racks, and a latch R, pivotally suspended above said door, substantially as described. 15

In testimony whereof I affix my signature in presence of two witnesses.

SMITH WHITNEY BRADLEY.

Witnesses:

E. O. TERRELL,
T. C. S. SMITH.