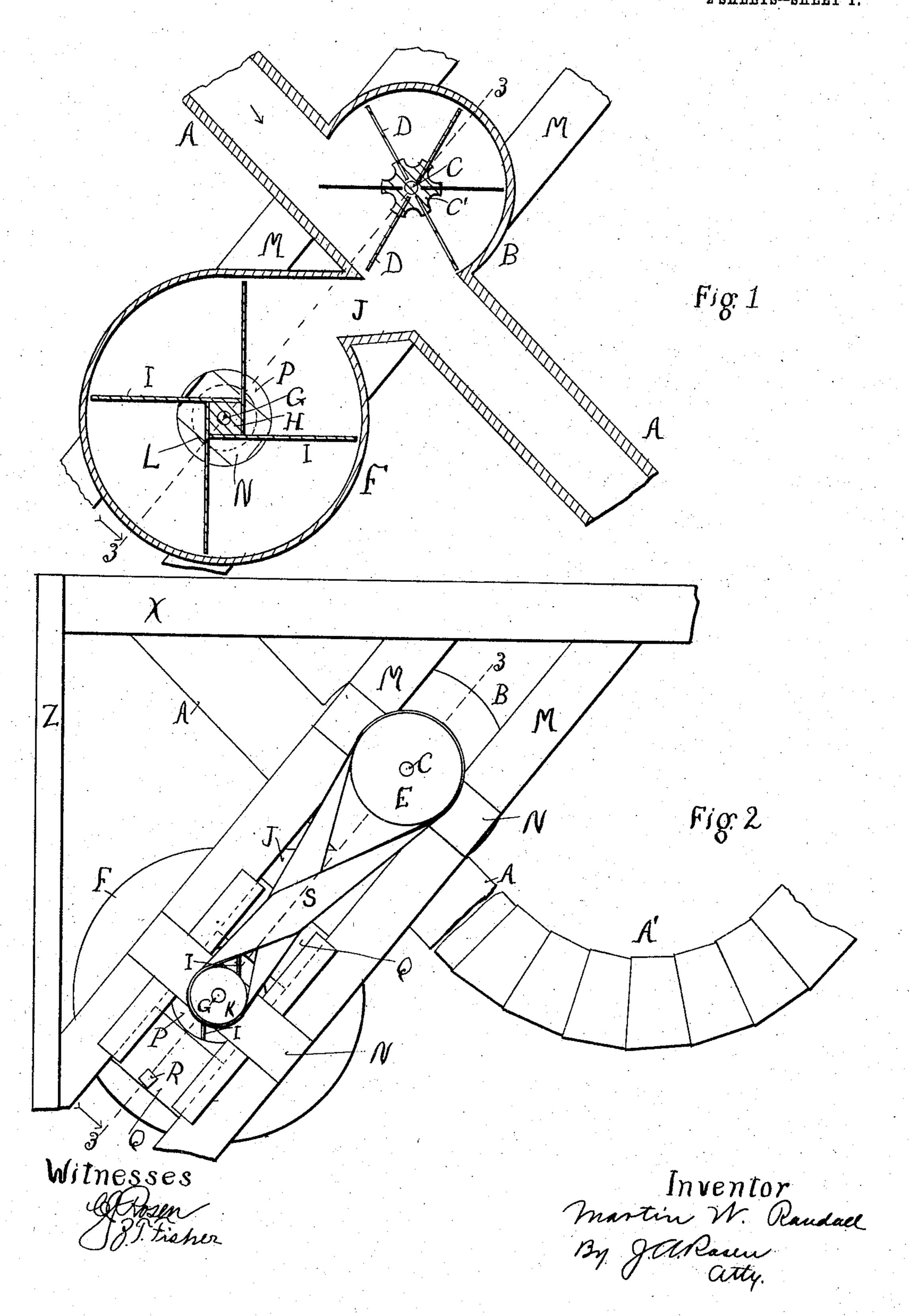
M. W. RANDALL. CAR LOADING DEVICE. APPLICATION FILED AUG. 28, 1904.

c marage granage



M. W. RANDALL. CAR LOADING DEVICE. APPLICATION FILED AUG. 26, 1904.

2 SHEETS-SHEET 2.

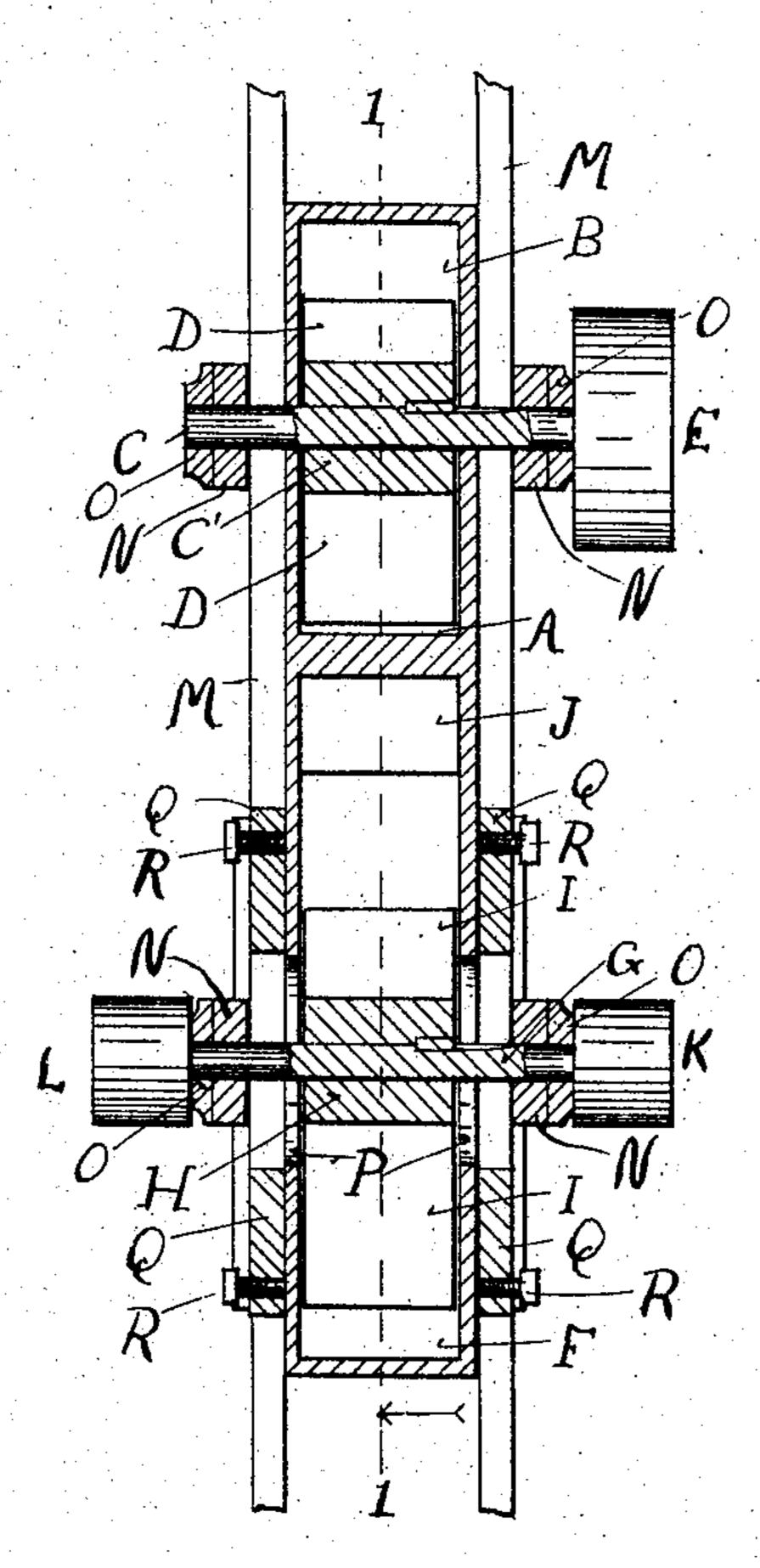


Fig. 3

Witnesses

Inventor mertin W. Randace By J. a. Randace atty

- United States Patent Office.

MARTIN W. RANDALL, OF VINING, KANSAS, ASSIGNOR OF ONE-HALF TO L. R. DAINS, OF CLAY COUNTY, KANSAS.

CAR-LOADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 781,360, dated January 31, 1905.

Application filed August 26, 1904. Serial No. 222, 262.

To all whom it may concern:

Be it known that I, MARTIN W. RANDALL, a citizen of the United States of America, residing at Vining, in the county of Clay and 5 State of Kansas, have invented a new and useful Improvement in Car-Loading Devices, of which the following is a specification.

The invention relates to devices for loading grain into railway-cars. Heretofore the grain to has passed from the bin down through the spout into the car-door and onto the car-floor, and from there it has been shoveled by the laborer to the ends of the car.

It is the object of the present invention to 15 provide a device by which the grain may be loaded into the car and into each end thereof without the necessity of shoveling it or handling it by human labor.

To this end the invention consists of the 20 novel combination, arrangement, and disposition of the parts, as set forth hereinafter and as shown in the accompanying drawings, forming part of this specification, and as hereinafter specifically claimed.

Figure 1 is a longitudinal section of the device, taken through the line 1 1, Fig. 3. Fig. 2 is a side elevation; and Fig. 3 is a crosscut section through the line 3 3, Figs. 1 and 2.

Like letters refer to like parts throughout 3° the several views.

A is the spout or chute through which the grain passes from the elevator to the car.

B is a beater arranged therein and provided with the shaft C and hub C', to which are 35 secured the six beater-blades D. The beater is operated by the pulley E.

F is a rotary fan of ordinary construction having the drive-shaft G and hub H, to which are secured the four blades or vanes I. The 40 blast is directed into the grain-chute A by the throat J just below the beater B. The fan is driven by the drive-pulley L, while at the other end of the shaft G is the pulley K, by which the pulley E, through the crossed 45 belt S, is driven. The fan is driven at about fifteen hundred revolutions per minute and the beater at about half that speed, as indicated by the relative sizes of the pulleys E and K.

For a framework on each side is a pair of 50 beams M, and a cross-piece N is provided, wherein to give the ends of the shaft a bearing, and suitable metallic bearing-blocks O may also be provided.

PP are the air-inlets for the fan. They 55 are provided with the wind-gates Q, which may be adjusted and held in place by the setscrews R.

The device may be secured or built into the elevator or other place by fastening the 60 beams M to the joists X and studding Z.

As the grain passes down the chute A by the force of gravity, as it comes to the beater B it is thrown forward down the chute with great speed, and while still going under the 65 impulse from the beater-blade the particles are carried on down by the blast from the fan at great speed. The lower end of the chute may be flexible, so that the grain may be directed into either end of the car or else- 70 where. The beater serves to start the particles of grain at a high speed, and the fan and blast serve to maintain the high speed, whereas without the device the grain would simply fall to the floor of the car. With the heavy 75 grain the gates Q should be wide open; but. with the lighter, such as oats, the gates should be almost entirely closed. It is understood, however, that the blast may be regulated to a nicety to suit any condition or circumstance. 80

It will be understood that the blast should be introduced into the chute near enough to the beater so as to catch the particles while still under the impulse from the beater.

By the use of this device with a little mo- 85tive power the work of two men is accomplished.

What I claim is—

In a car-loading device, the combination with the inclined grain-chute down which the 90 grain flows by gravity, and having a flexible portion the rotary beater arranged therein comprising the shaft and beater-blades, the shaft being provided with a pulley; the fan comprising the shaft and blades, the two pul- 95 leys on the shaft, the air-inlets and the adjustable wind-gates therefor, and the throat J connecting the fan with the chute just below

•

the beater; the belt S connecting the beatershaft pulley and one of the air-shaft pulleys,

shaft pulley and one of the air-shaft pulleys, the other air-shaft pulley being the drive-pulley for the device; and a suitable frame wherein said parts are embraced as a single compact car-loading device; substantially as set forth.

In testimony whereof I have hereunto signed my name in the presence of witnesses.

MARTIN W. RANDALL.

Witnesses:
A. H. TEGELER,

A. H. TEGELER, HARRY O'BRIEN.