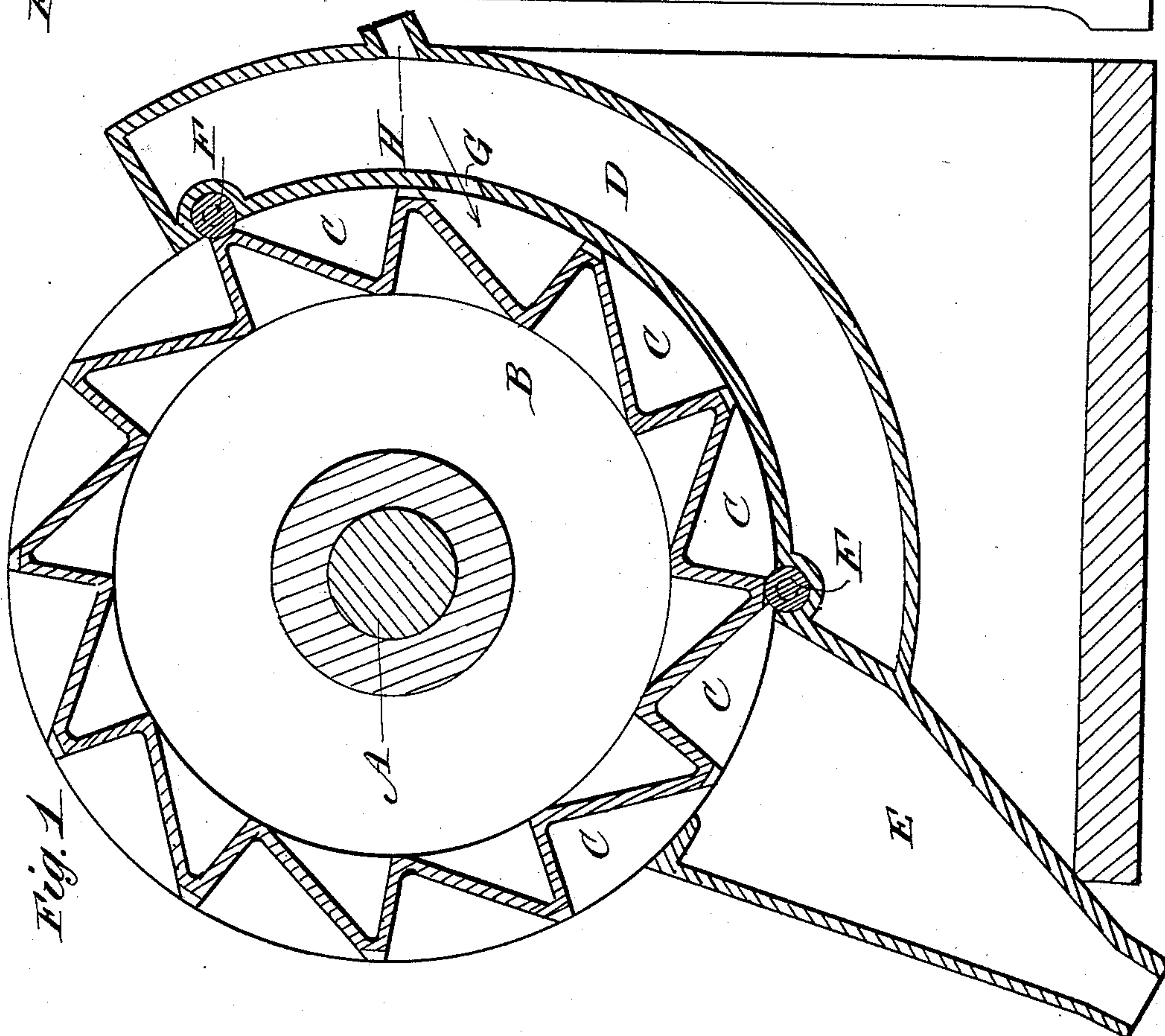
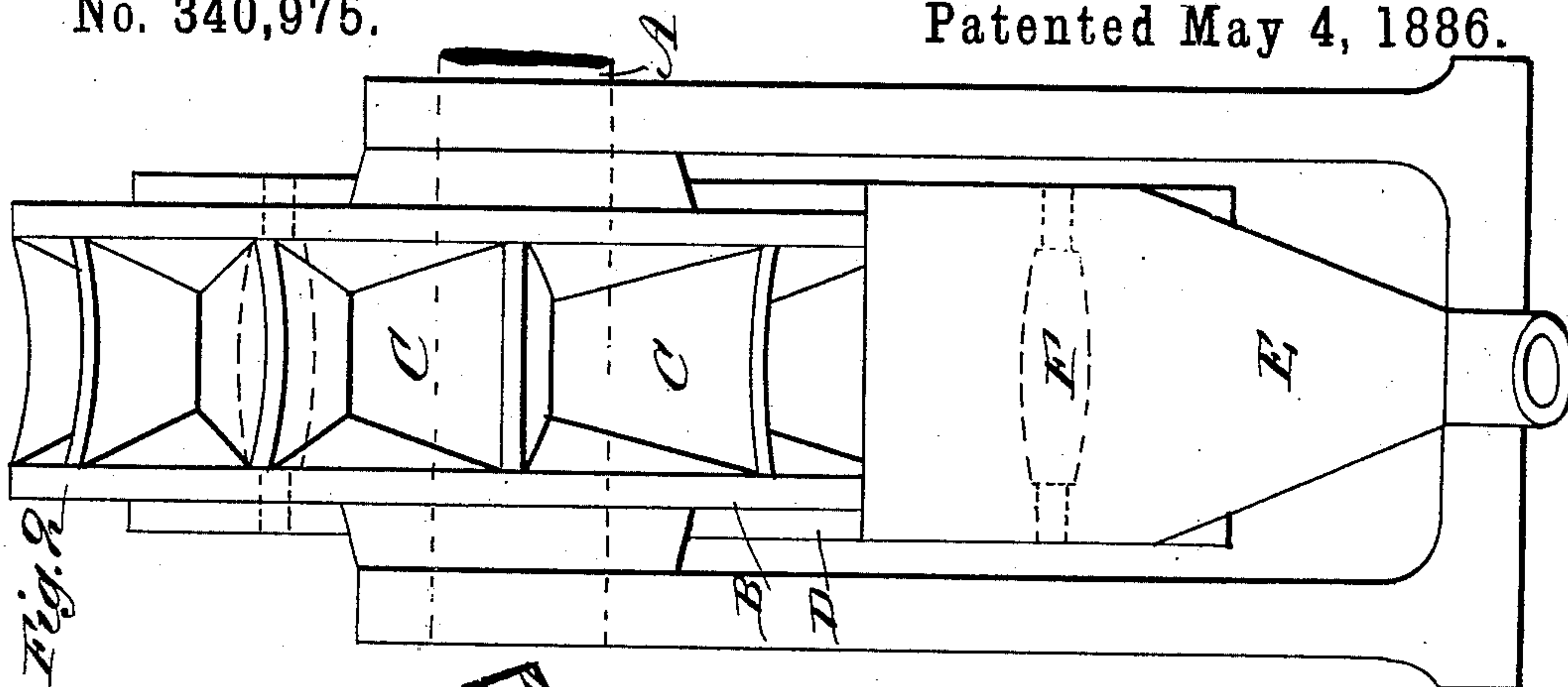


(No Model.)

G. W. BOND.  
ROTARY ENGINE.

No. 340,975.

Patented May 4, 1886.



WITNESSES:

*C. Neveu*  
*C. Sedgwick*

INVENTOR:

*G. W. Bond*

BY

*Munn & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE W. BOND, OF FORT WAYNE, INDIANA.

## ROTARY ENGINE.

SPECIFICATION forming part of Letters Patent No. 340,975, dated May 4, 1886.

Application filed August 20, 1885. Serial No. 174,907. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. BOND, of Fort Wayne, in the county of Allen and State of Indiana, have invented a new and Improved Rotary Engine, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved rotary engine which is simple in construction, effective in use, and utilizes the steam to the greatest advantage.

The invention consists of the combinations of parts, including their construction, substantially as hereinafter fully set forth, and pointed out in the claim.

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

Figure 1 is a longitudinal sectional elevation of my improved rotary engine. Fig. 2 is a front view of the same.

On the shaft A the steam-wheel B is rigidly mounted, and said wheel is provided on its rim with a series of triangular buckets, C. A semicircular steam-chest or steam-box, D, fits snugly against part of the rim of the wheel B, and is provided at its lower end with a discharge-pipe, E, which is not in communication with the cavity of the chest-box, but has its upper end, adjacent to the steam-wheel, open, so that the exhaust-steam can pass from the buckets C into said exhaust-pipe.

The steam chest or box D is provided in its inner side with two or more recesses, in which anti-friction rollers F are mounted, on which the outer edges of the bucket-wings and the sides of the wheel can run.

The steam chest is provided in its inner side

with an opening, G, through which the steam, &c., can pass into the buckets C, and on its outer side the chest has a neck, H, for conducting the steam, &c., into the chest, the central axes of the aperture G and neck H being in line, and having such inclinations that the steam passing through them will strike the buckets on the wheel in the direct line of action and under the most favorable circumstances.

The sides of the steam-wheel extend to the outer edges of the buckets, and the steam-chest and all other parts are packed as carefully as possible to form steam-tight joints.

No connecting-rods, slide-valves, cylinders, pistons, &c., are required.

If desired, the buckets may be arranged on the face of the wheel, the other parts remaining the same—that is, the steam-chest and steam-supply pipe being arranged correspondingly.

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

In a rotary steam-engine, the combination, with the wheel having peripheral buckets with their outer front edges curved or concaved, of the segmental steam-box having on the inner side, near or at its ends, rotary bearings upon said concaved or curved front edges of the buckets, and the exhaust-pipe taking the exhaust-steam from the buckets at the lower end of said steam-box, substantially as and for the purpose specified.

GEORGE W. BOND.

Witnesses:

FRED V. GRAHAM,  
T. W. WILSON.