

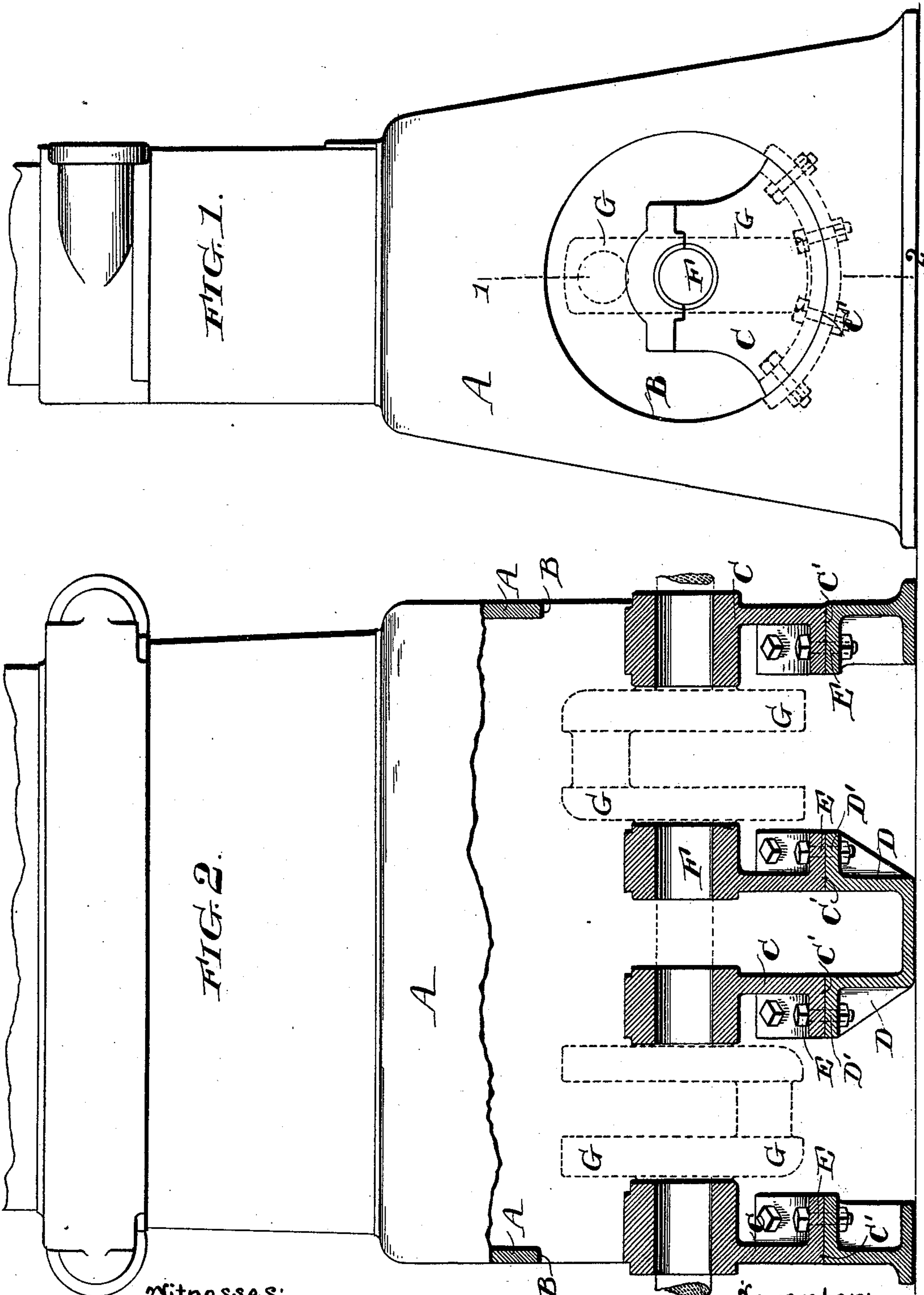
(No Model.)

G. S. STRONG.

DEVICE FOR SUPPORTING CRANK SHAFTS.

No. 497,357.

Patented May 16, 1893.



Witnesses:  
Henry D. May  
J. B. Russell

Inventor:  
George S. Strong  
by his atty.  
Francis T. Chambers



# UNITED STATES PATENT OFFICE.

GEORGE S. STRONG, OF NEW YORK, N. Y., ASSIGNOR TO JAMES N. GAMBLE,  
OF DAYTONA, FLORIDA.

## DEVICE FOR SUPPORTING CRANK-SHAFTS.

SPECIFICATION forming part of Letters Patent No. 497,357, dated May 16, 1893.

Application filed April 22, 1892. Serial No. 430,189. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE S. STRONG, of the city, county, and State of New York, have invented a certain new and useful Improved  
5 Device for Supporting Crank-Shafts, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

10 My invention relates to devices for supporting the crank-shafts of steam engines; having in view its object to facilitate the adjustment and removal of such shafts.

15 The nature of my invention will be best understood as described in connection with the drawings in which it is illustrated, and in which—

20 Figure 1 is a side elevation of a portion of an engine frame embodying my improvement, and Fig. 2 a front elevation partly in section on the line 1—2 of Fig. 1.

25 A is the frame of the engine, in the sides of which I form circular openings B B of a diameter greater than the length of the crank and counter-balance to be used upon the crank-shaft. The openings B should be brought to a determined diameter in a boring mill.

30 C C, &c., are pedestals adapted to support the crank-shaft F, and having their bases C' turned to a circular arc and adapted to fit neatly against the edge of the openings B. Where the opposite openings B do not form a sufficient support for the crank-shaft, a supporting block D may be used placed midway  
35 between the openings B B, and having its face D' bored out to the form of a circular arc of a circle of the same diameter as that of the circular openings B B. Pedestal C having the form described, can then be supported on  
40 this bearing block as shown in Fig. 2 of the drawings. The pedestals are secured in place by means of bolts E E, &c., as indicated in the drawings, the pedestals C having their bases C' of the flanged form shown and the portion  
45 of the rim of the circular openings B upon which the pedestals rest being also flanged as shown so that the bolts E can pass through the abutted flanges.

G G indicate the cranks and counter-balance forged or secured to the shaft F. The  
50 diameter of the openings B is greater than the length of the crank and counterbalance; and, therefore, it will be seen that the crank-shaft and its pedestals can be inserted and removed  
55 in the frame with great ease, and secured in place in a very simple and efficient manner.

Not only does my new construction enable me to insert and remove the shaft very readily; but it also secures a very perfect alignment of the shaft as will be readily seen. 60

While of course, I prefer to support the shaft at both ends on pedestals, which in turn are secured in circular openings B, it will be seen that the object of my invention will be  
65 largely obtained by providing only one opening B, and supporting one end of the shaft in these openings, and the other end in the usual way.

Having now described my invention, what I claim as new, and desire to secure by Letters  
70 Patent, is—

1. The combination of an engine frame having a circular opening B of greater radius than that of the crank in its side, a pedestal C partially filling the opening B and having  
75 a base C' turned to a circular arc adapted to seat on and be secured to the edge of opening B, and a crank shaft F supported on said pedestal and having a crank or cranks G adapted to pass through opening B. 80

2. The combination of an engine frame having circular openings B B on opposite sides, a bearing block D with its upper face turned to the same curve as said openings, pedestals C of a size to partially fill the openings B and  
85 having their bases C' turned to a circular arc adapted to seat on and be secured to the edges of openings B and block D and a crank shaft F supported on said pedestals.

GEORGE S. STRONG.

Witnesses:

FRANCIS B. ANTZ,  
FRANCIS T. CHAMBERS.