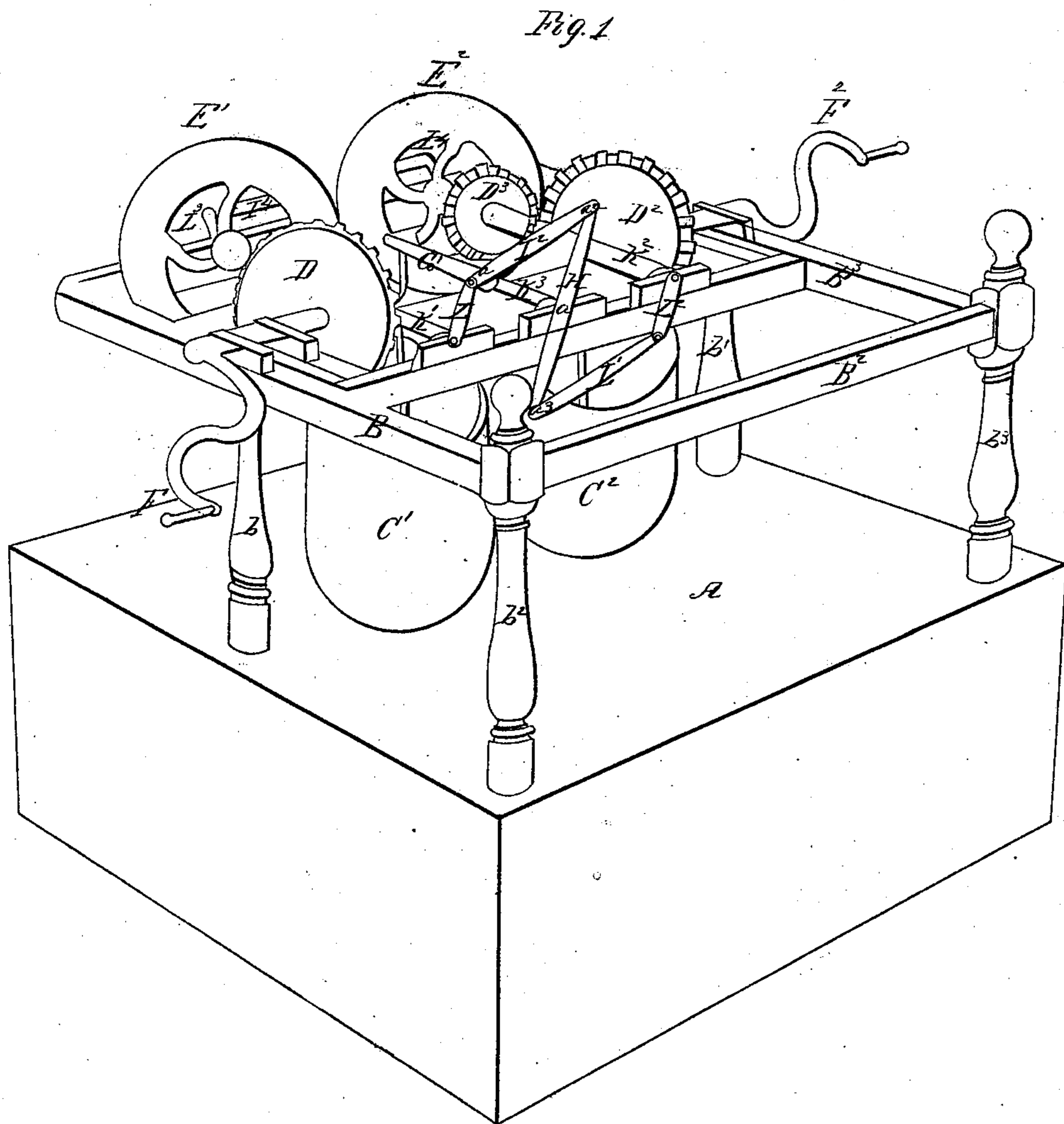


J. P. Carr,

Pump Lever.

No 24,193.

Patented May 31, 1859.



Witnesses.
Isaiah West
S H Eaton

Inventor.
John P Carr

UNITED STATES PATENT OFFICE.

JOHN P. CARR, OF MATTAPOISET, MASSACHUSETTS.

PUMP-GEARING.

Specification of Letters Patent No. 24,193, dated May 31, 1859.

To all whom it may concern:

Be it known that I, JOHN P. CARR, of Mattapoiset, in the county of Plymouth and State of Massachusetts, have invented new
5 and Improved Pump-Gearing for Operating Ships' Pumps; and I do hereby declare the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed
10 drawing, making a part of this specification.

Figure 1 is a perspective view and is all the drawing requisite to illustrate my invention.

A represents the deck of the ship; B¹ B²
15 B³ a railing around the pumps and mainmast, which is supported by the posts b¹ b² b³ b⁴, and to which is affixed the machinery constituting my invention; C¹ C² the pumps;
20 D¹ D² multiplying gear wheels; E¹ E² fly-wheel; F¹ F² cranks which need no further specification.

G' is a horizontal rocking beam, permanently secured to the center of the shaft K³, connected also at each end in movable joints
25 with the pistons J¹ J².

H' is a lever secured in its center to the end of the shaft K³ at a' and at right angles with the beam G', and also connects, in movable joints, at each end, with the connecting
30 rod I¹ I² at a² a³.

K¹ K² are the multiplied shafts, to the ends of which are secured the cranks L¹ L². These cranks are also connected with movable joints with the connecting rods I¹ I² at
35 a⁴ a⁵.

I⁴ is a connecting rod which operates always in a horizontal manner, and connects the two multiplied shafts by means of the cranks L³ L⁴, causing the shafts K¹ K² in
40 conjunction with the lever H'. Cranks L¹ L², and connecting rods I¹ I² to revolve with the same velocity, and also cause the resistance on the cranks F¹ F² to be equal.

Operation: By turning the cranks F¹ F²
45 the fly-wheels are caused to revolve and

consequently the shafts K¹ K² are also revolved. By means of the cranks L¹ L² on the shafts K¹ K², the connecting rods I¹ I² cause the shaft K⁴ and consequently the beam G' to assume a rocking motion. The
50 two fly-wheels E¹ E² are caused to rotate with equal velocity by means of the connecting rod I⁴ and the cranks L³ L⁴. The power of the operators at the cranks F¹ F² being accumulated in the fly-wheels is disposed in
55 regulating and causing the even working of the pumps.

The rocking beam G' and the lever H' may be considered a lever, the journals of the shaft K' its fulcrum. The pistons, connecting rods and cranks, being properly
60 constructed and of uniform dimensions, as shown by the drawing and model, there are no dead points; the resistance is equal on the pumps and the labor of the operators is
65 uniform. Either pump may be disconnected; or the cranks F¹ F² turned either backwards or forwards and the result is the same.

By this invention a quick, uniform, and
70 powerful stroke of the pistons is attained.

In this petition and specification I do not confine my invention to operating ships' pumps, it may be applied to other pumps.
75 Neither do I confine to securing said machinery to the deck as described, it may be affixed in any practical manner. Neither do I claim or desire to claim any previous invention for operating pumps; but

What I do claim as my invention, and desire to secure by Letters Patent and to what
80 I do confine myself is—

The device, as herein set forth and described, for operating pumps on board of ships and in other places where said invention
85 may be useful.

JOHN P. CARR.

Witnesses:

ISAIAH WEST,
S. K. EATON.