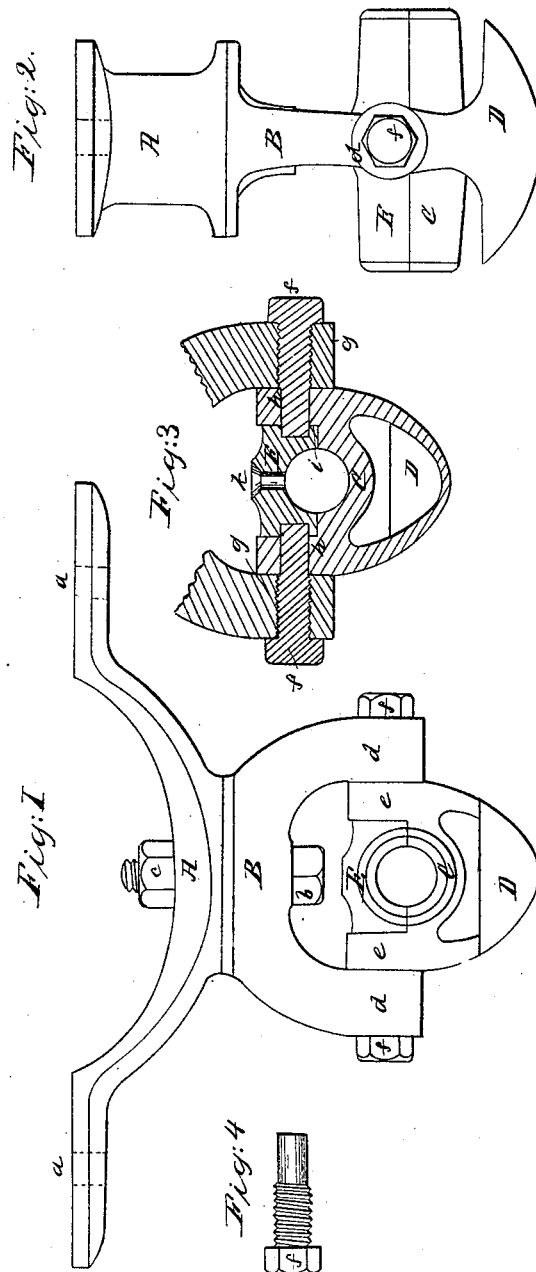


E. Bancroft,
Shaft Hanger,
No 6,464,
Patented May 22, 1849



UNITED STATES PATENT OFFICE.

EDWARD BANCROFT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MILL-SHAFTING.

Specification forming part of Letters Patent No. 6,464, dated May 22, 1849.

To all whom it may concern:

Be it known that I, EDWARD BANCROFT, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Mill-Shafting; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 2 are geometrical elevations of a complete hanger; Fig. 3, a section of the lower part thereof, including the box; and Fig. 4, a representation of one of the screw-bolts *f*, which serve as pivots for the box.

The improvement referred to consists in making the hangers or bearings which sustain the shafts in such a manner that they shall at all times and under any circumstances conform accurately to the journals of the shafts, and, at the same time, not be more liable to be thrown out of line than hangers of the ordinary construction; and, further, in making the oil-catcher form a part of the box of the hanger by casting it thereto, thus giving it additional strength without unnecessarily increasing its weight. Said hanger is constructed of four main parts, viz.—the upper or main bow, *A*, the lower bow, *B*, the lower section, *C*, of the box, to which the oil-catcher *D* is cast, and the upper section or cap, *E*, of the box.

The upper or main bow is attached to the floor or timbers of the mill by means of screw-bolts passing through the holes *a* (indicated by dots) near its extremities. To the under side of said bow the lower bow is attached, in any desired position, by means of the strong screw-bolt *b* and nut *c* in the center thereof. The meeting surfaces of the bows are made perfect planes, so as to produce a close joint, and the peripheries of said surfaces are perfectly circular, of a corresponding diameter. The lower section of the box is accurately fitted in between the downward-tending extremities *d* of the lower bow, and the cap of the box is closely fitted in between the flanges *e* of the lower box-section, and on it. Said flanges, continuing downward, connect the

oil-catcher with the box. A screw-bolt, *f*, the extremity of which is without a thread, (see Fig. 4,) passes through a hole, *g*, furnished with a screw-thread, in each of the extremities of the lower bow, thence through a smooth cylindrical perforation, *h*, in the corresponding flange of the lower section of the box, and then into a smooth cylindrical socket or cavity, *i*, in the cap of the box. The smooth extremities of the said screw-bolts *f* serve as pivots, on which the box swings. By unscrewing them partly, so as to clear the sockets *i*, the cap of the box may be removed without disturbing the rest; and by further unscrewing them, and clearing the perforations *h*, the lower section of the box may be taken off without interfering with the remainder. Thus it will be perceived that the whole or part of the box may be removed, for whatever purpose such removal may be required, or replaced at pleasure, by the most simple means.

The shaft being laid in its place determines the exact lateral position of the lower bow, *B*, after which the bolt *b* may be firmly screwed up by means of the nut *c*.

In consequence of the box being hung on pivots it will adjust itself to any deviation of the shaft from a horizontal line. The upper section or cap of the box is furnished with the usual oil-conducting orifice *k*. For single shafts, where the journals are at the ends, the box may be made in one piece, dispensing with the cap.

The advantages possessed by this hanger over those heretofore used are, first, the shaft always having command of its own bearing, a complete and accurate adjustment of one to the other is always secured, thereby requiring much less oil, being free from all friction, except that due to its weight only; secondly, the oil-catcher, forming a part of the box, is always secure in its place, and not liable to be deranged or lost, or have the oil spilled or thrown out; thirdly, the facility afforded for taking the cap off the box on examining the box and shaft, and replacing it without liability of getting any part thereof out of its proper adjustment; fourthly, its neat and

smooth exterior, rendering it easy to keep clean; and, fifthly, its cheapness and durability.

I do not claim the suspending a box or bearing on pivots, this having been done before; nor do I claim the making the hanger in several parts; but

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

The general arrangement and construction of the complete hanger, with or without the oil-catcher forming a part thereof, made substantially in the manner and for the purposes hereinabove described.

EDWARD BANCROFT.

Witnesses:

GEORGE BENNE,
FRANCIS BENNE.