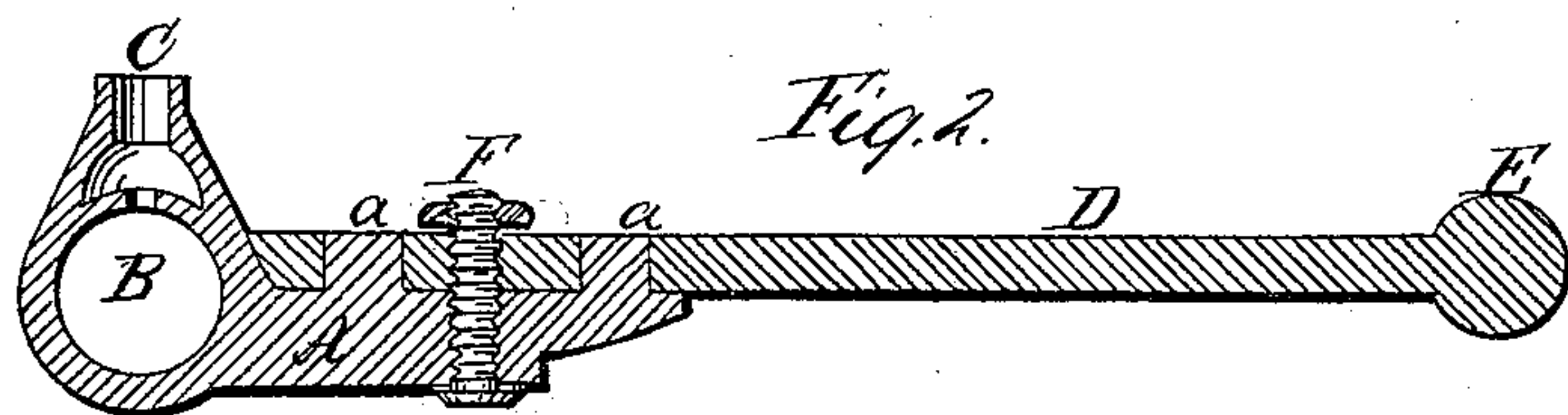
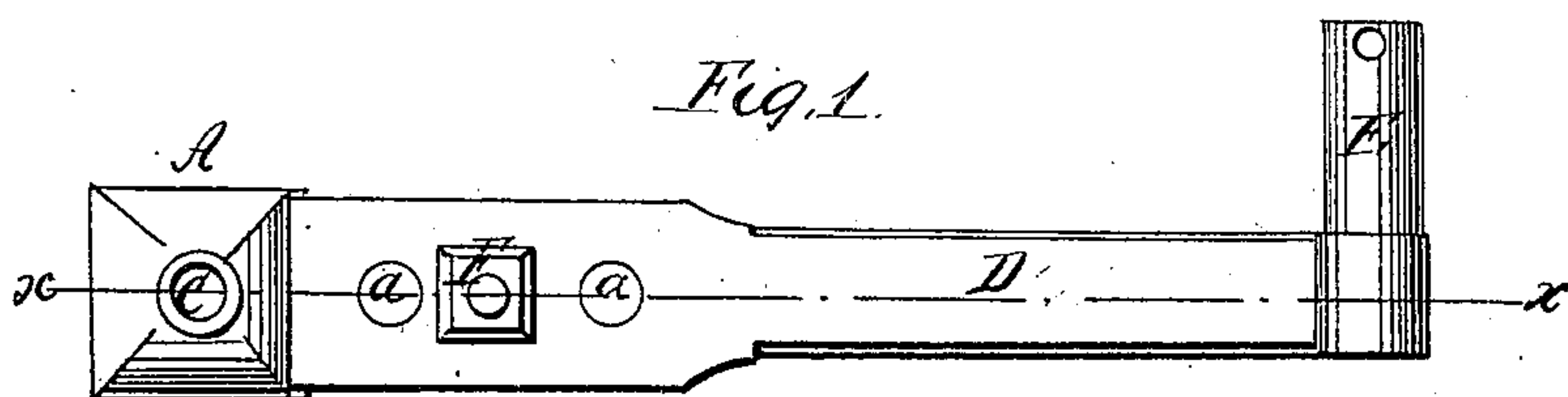


F. Graham,

Pitman.

N^o 37,473.

Patented Jan. 20, 1863.



*Witnesses,
A. Pohlars
J. L. Lunden*

*Inventor
Freeman Graham
by his Attorney
Wm. D. Baldwin.*

UNITED STATES PATENT OFFICE.

FREEMAN GRAHAM, OF ROCKFORD, ILLINOIS, ASSIGNOR TO RALPH EMERSON, JR., OF SAME PLACE.

IMPROVEMENT IN PITMEN.

Specification forming part of Letters Patent No. 37,473, dated January 20, 1863.

To all whom it may concern:

Be it known that I, FREEMAN GRAHAM, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in the Pitman, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a plan or top view of a pitman embracing my improvement, and Fig. 2 a vertical longitudinal section through the same at the line *x x* of Fig. 1.

In a pitman to which a rapid vibration is imparted the head or eye into which the wrist-pin or crank is inserted if made of wrought-iron is more liable to cut out rapidly than if made of cast-iron, besides being more costly, while were the whole pitman made of cast-iron it would be too weak to resist the strains to which it is subjected while in operation unless made too heavy for successful practical operation.

It is the object of my invention to provide a pitman which shall combine the qualities of cheapness, lightness, durability, and strength, while avoiding the defects of those composed entirely of one kind of metal; and to these ends my improvement consists in constructing that portion of the pitman upon which the strain comes of wrought-iron, while that portion exposed to rubbing contact is of cast-iron.

The accompanying drawings show my im-

provement as adapted for use in a harvesting-machine, for which purpose it is more especially designed.

The head A is made of cast-iron. It is provided with an eye, B, in which the wrist-pin or crank from which the pitman derives its motion plays, and an oil-cup, C, from which to lubricate it. Two pins or dowels, *a*, are likewise cast upon the head. The arm D of the pitman is of wrought-iron, and provided with a projection, E, which hooks into the eye of the cutter-bar to drive it. The arm is pierced with holes corresponding with the pins *a*, which take into them. The head and arm are united by a screw-bolt and nut, F, by which arrangement the two can readily be separated, when desired, for replacement or repair of any broken part. As the cast-iron resists friction better than wrought-iron, and is besides less costly, the advantages of my improvement are obvious.

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

A pitman composed of a cast-iron head to sustain friction and a wrought-iron arm to resist strains, when constructed and combined substantially in the manner described.

In testimony whereof I have hereunto subscribed my name.

FREEMAN GRAHAM.

Witnesses:

PORTER SHELDON,
WM. A. TALCOTT.