

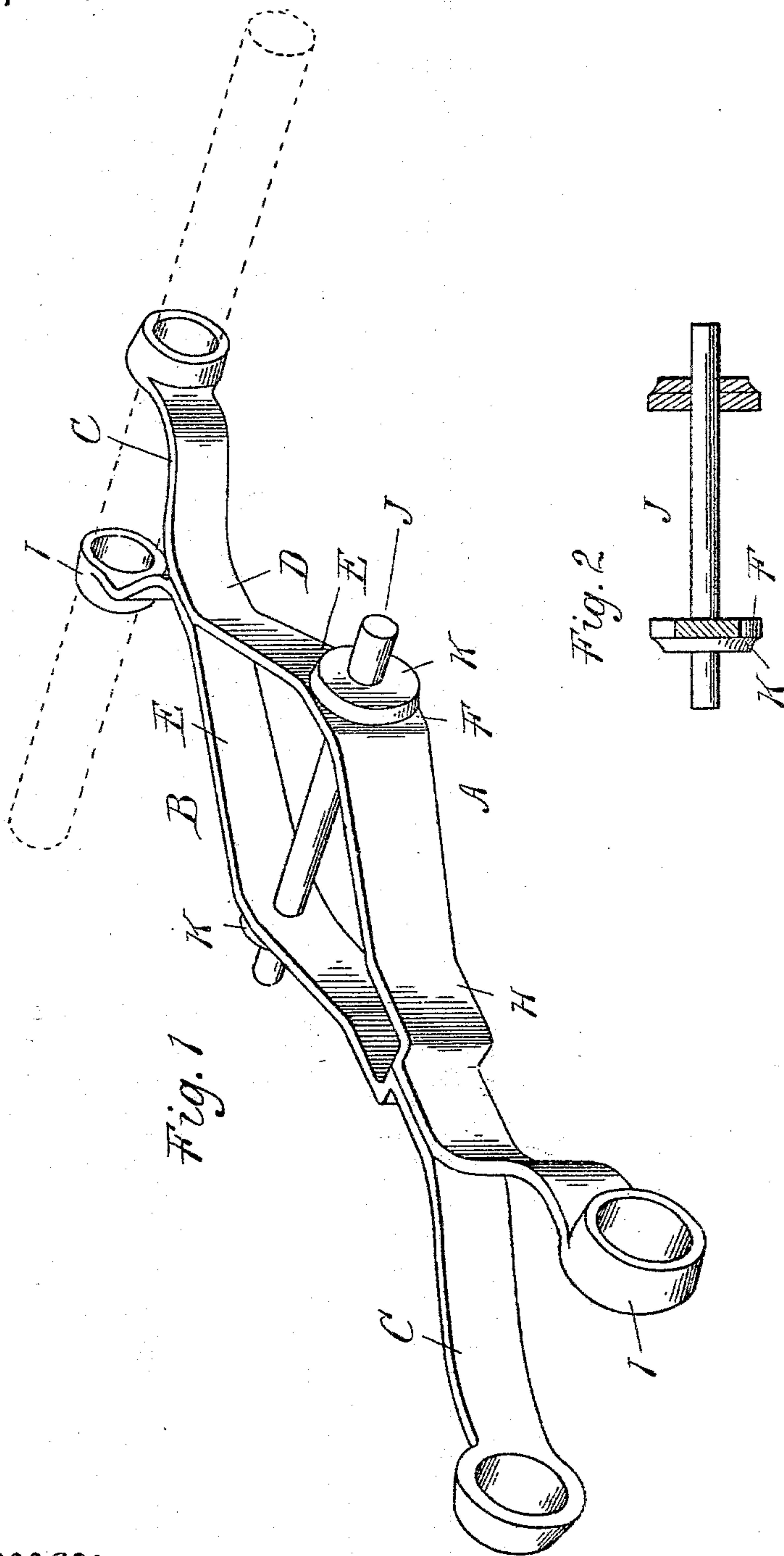
(No Model.)

C. ROBERTS, Dec'd.

J. B. & G. A. ROBERTS, C. B. TUCKER & S. H. ROBERTS, Executors.
HAND CAR.

No. 511,211.

Patented Dec. 19, 1893.



Witnesses:
P. M. Hulbert
M. J. McCarthy

James B., George A., and Samuel H. Roberts
and Carrie B. Tucker, executors
of Cyrus Roberts, Inventor;
By W. S. Spague & Son Attys.

UNITED STATES PATENT OFFICE.

JAMES B. ROBERTS, GEORGE A. ROBERTS, AND CARRIE B. TUCKER, OF
THREE RIVERS, MICHIGAN, AND SAMUEL H. ROBERTS, OF DENVER,
COLORADO, EXECUTORS OF CYRUS ROBERTS, DECEASED.

HAND-CAR.

SPECIFICATION forming part of Letters Patent No. 511,211, dated December 19, 1893.

Application filed October 9, 1893. Serial No. 487,593. (No model.)

To all whom it may concern:

Be it known that CYRUS ROBERTS, a citizen of the United States, residing at Three Rivers, in the county of St. Joseph and State of Michigan, having invented certain new and useful Improvements in Hand-Cars, and being now deceased, we, JAMES B. ROBERTS, GEORGE A. ROBERTS, and CARRIE B. TUCKER, of Three Rivers, St. Joseph county, Michigan, and SAMUEL H. ROBERTS, of Denver, Arapahoe county, State of Colorado, the executors of the last will and testament of said CYRUS ROBERTS, deceased, do hereby present the following specification of said invention, reference being had to the accompanying drawings.

The invention consists in the construction of the walking beam whereby the cost of manufacture is lessened and a better article is produced, all as more fully hereinafter described.

In the drawings, Figure 1 is a perspective view of a walking beam embodying the invention. Fig. 2 is a vertical central section through the shaft.

In the manufacture of walking beams, it is desired, first, to produce them of as few pieces as possible, thereby saving labor in welding and forming and strengthening the device, and second to produce a structure which will resist the strains to which it is subjected in use. To this end the beam is made of band or bar iron, and consists of two side bars A, B, these bars being bent to form the inclined handle sections C, the straight securing portions D, and the central bow or half diamond shaped bearing section E, having a straight central section F. A socket for the pitman rod is formed by making an offset H at the juncture of the central and securing sections at one end. Sockets or thimbles I are struck out of the ends of the bars and the bars are centrally apertured to receive the shaft J. The bearing of this shaft in the bars is strengthened by the reinforcing collars K welded on the outside of the portions F of the bars. The bars thus formed are secured together by welding or otherwise connecting

the securing portions D forming a walking beam consisting of a central diamond shaped bearing portion and end Y shaped handle portion tied together by the central shaft which has its bearings outside. This structure is especially adapted to prevent the wringing or twisting of the beam, caused by unequal power at the ends of the handle bars N. It is also light and cheaply manufactured.

What is claimed is—

1. A walking beam consisting of two bars of metal, shaped and secured together to form a central open diamond shaped section, and end Y shaped handle sections, handle sockets at the end, and a central shaft, substantially as described.

2. A walking beam consisting of two bars of metal, each shaped to form the sections C, D, E, with end sockets secured together by welding the complementary securing sections D, and a central shaft, substantially as described.

3. A walking beam consisting of two bars of metal, shaped to form a central diamond shaped section and Y shaped end sections, of a bearing for the pitman connection formed by the offset H, substantially as described.

4. In a walking beam, the combination of the two bars A, B, bent and secured together substantially as described, of the reinforcing collars K, and the central shaft passing through the bars and collars, having outside bearing portions, substantially as described.

In testimony whereof we affix our signatures in the presence of witnesses.

JAMES B. ROBERTS,
GEORGE A. ROBERTS,
CARRIE B. TUCKER,
SAMUEL H. ROBERTS,

Executors of Cyrus Roberts, deceased.

Witnesses as to James B. and George A. Roberts and Carrie B. Tucker:

MARVIN H. BUMPHEY,
JAMES E. BUNN.

Witnesses as to Samuel H. Roberts:

GEO. H. KNIFTON,
JAS. F. CARROLL.