

(No Model.)

J. C. MALONEY
PITMAN.

No. 491,727.

Patented Feb. 14, 1893.

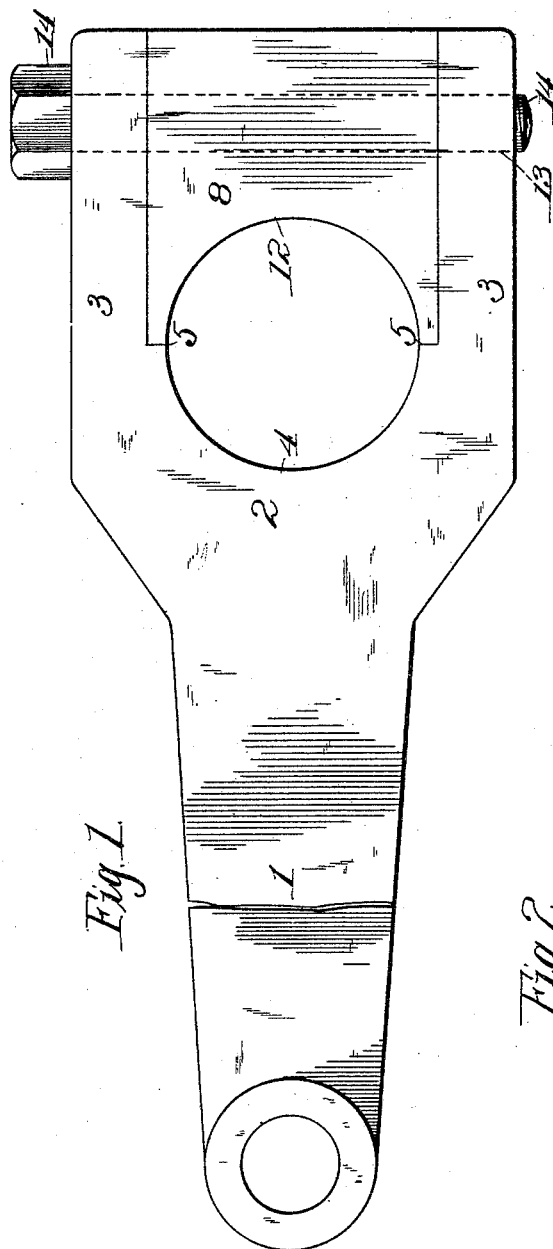


Fig. 1.

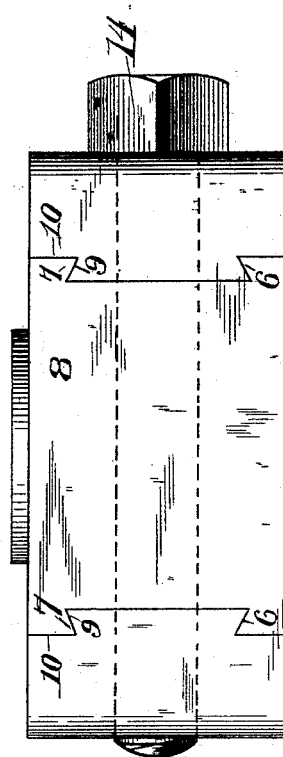


Fig. 2.

Attest
Joseph B. Stack.
F. J. Benjamin

Inventor
John C. Maloney
By Chas. J. Cooh
Atty

UNITED STATES PATENT OFFICE.

JOHN C. MALONEY, OF BEAVER FALLS, PENNSYLVANIA.

PITMAN.

SPECIFICATION forming part of Letters Patent No. 491,727, dated February 14, 1893.

Application filed September 21, 1892. Serial No. 446,463. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. MALONEY, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Pitmen; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in the construction of pitmen, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents an elevation, and Fig. 2 an end view of a pitman constructed according to my invention.

The object of my invention is to construct a pitman for use in machinery generally where by the employment of the customary studs, yokes and straps is dispensed with, the usual speedy breaking of the pitman in use avoided, a practically solid pitman is produced which will be adapted for greatly lengthened service.

The head of my improved pitman is constructed of two sections keyed together by tenon or tongue and groove connection, the arm being integrally cast or forged with one of said sections, and by a bolt running transversely through said sections.

In the construction of wire-working machines generally, where pitmen are employed, it is, in practice, one of the pre-requisites that they shall be constructed so as to take up the minimum amount of room; the result is that they are rendered so complicated that it is impossible to get in a pitman except by the employment of studs, yokes or straps. By my invention I dispense with the employment of such studs, yokes, or straps by constructing the pitman of a solid two-part casting or forging connected together simply by a groove and tenon and a bolt passing transversely through said sections. By thus tightly connecting the upper and lower sections together the pitman is in effect as though constructed in a single solid piece, and the life of the pitman and of the machines to which they are applied is increased fully fifty per cent., besides lessening the cost of construction of and labor in applying the pitman connection.

1 represents the arm or rod and 2 the pit-

man-head. The arm 1 and sides, 3, of the pitman-head are formed integrally in a single casting or forging; the section, 3, of the said head is formed with a semi-circular socket, 4, and on its straight inner walls with a shouldered recess, 5, 6, and a central straight vertical tongue or tenon, 7. 8 represents a solid block or slide which is either cast or wrought, and has straight side grooves, 9, within which the tenons or tongues, 7, fit and at its edges vertical wings, 10, which engage with and fit within the vertical recesses, 5, in the outer section of the head, the inner ends, 11, of said block resting upon the shoulders, 6, as shown. This block or slide, 8, is also formed with a semi-circular bore, 12, so that when the two sections are joined together a perfect bush-bearing will be thereby produced for the reception of the crank. The respective sections at their outer portions are bored transversely and threaded, in one side of the pitman-head as at, 13, through which a screw-bolt, 14, of a circumference equal to that of said bores is passed to connect said sections together and to engage by means of its thread with the threaded bore in one side of the pitman-head. It will thus be seen that my pitman consists of but three parts, viz:—an integrally-formed arm or rod 1 and pitman-head 2; a block or slide; and a connecting bolt. By forming the pitman-head with a substantially U-shaped recess having an inner semi-circular end and straight vertical tenoned walls, and in forming the slide with a semi-circular inner end and straight vertical tenon-grooved walls, said head and slide will snugly fit and be held from lateral displacement and a perfect bush-bearing provided in a simple manner for the crank. By forming bolt-receiving holes transversely through said head and slide and threading the bolt-receiving hole in one side of the head and employing a bolt of a circumference corresponding with the circumference of said bolt holes and threading one end of said bolt it will be apparent that said bolt will securely connect said head and slide in immovable position.

Having thus described my invention, what I claim is:—

A pitman consisting of an integrally-formed arm or rod and head, said head having a substantially U-shaped recess having a semi-cir-

cular inner end and a straight vertical tenoned outer end, and a solid block or slide having a semi-circular inner end and straight vertical tenon-grooved sides, said head and slide having transversely-extending bolt holes threaded in one side of the head, and a head-and-slide-connecting bolt snugly fitting said bolt holes and having threaded engagement with one side of the head, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. MALONEY.

Witnesses:

GEORGE COOPER,
JAMES A. LOCKHART.