No. 753,270. PATENTED MAR. 1, 1904.

G. D. HUNTER.

STONE SAWING MACHINE.

APPLICATION FILED MAY 26, 1903.

NO MODEL.

Fig. 1.

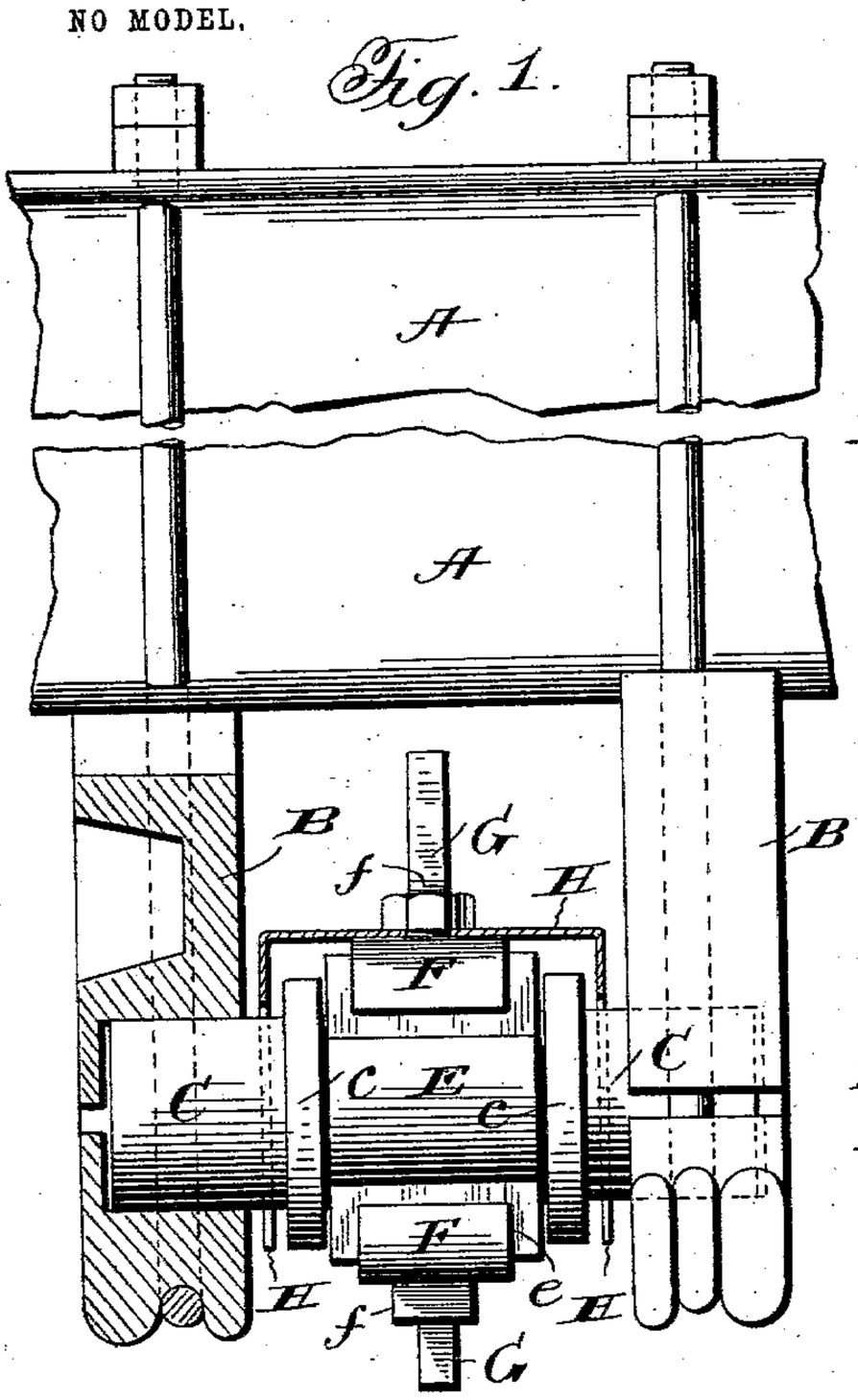


Fig. 2.

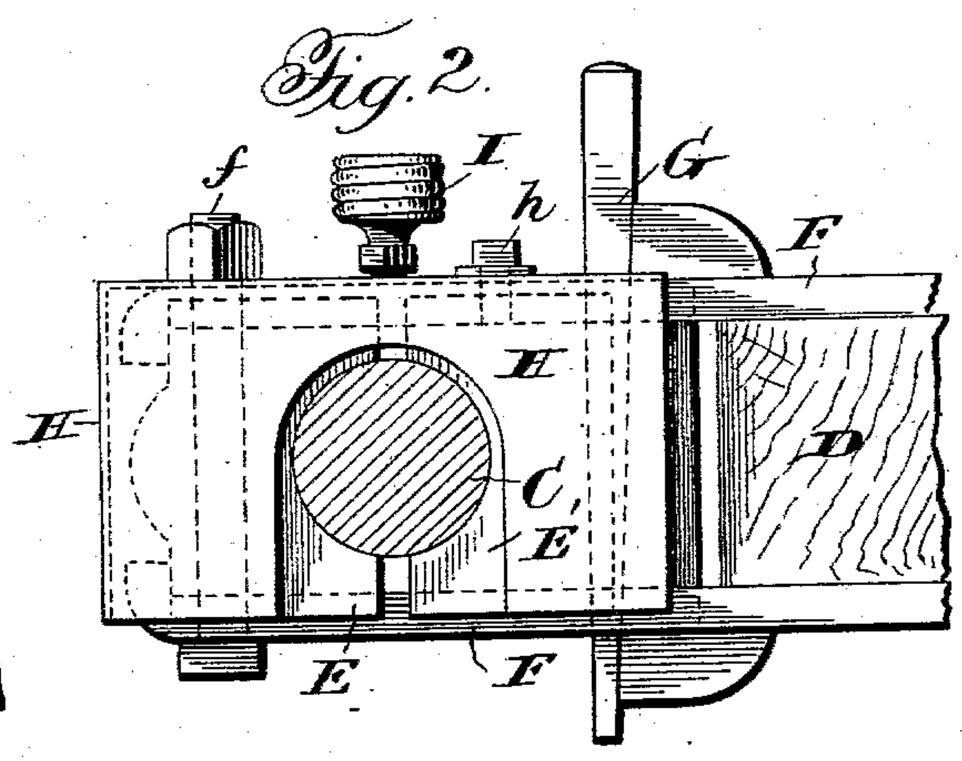


Fig. 3.

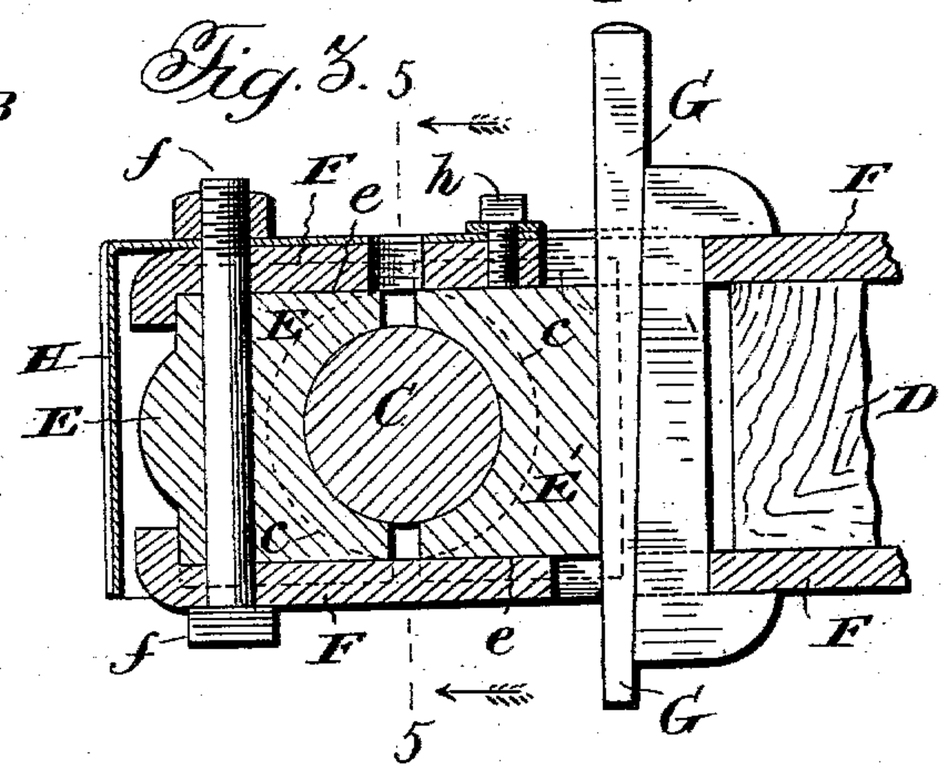


Fig. 4.

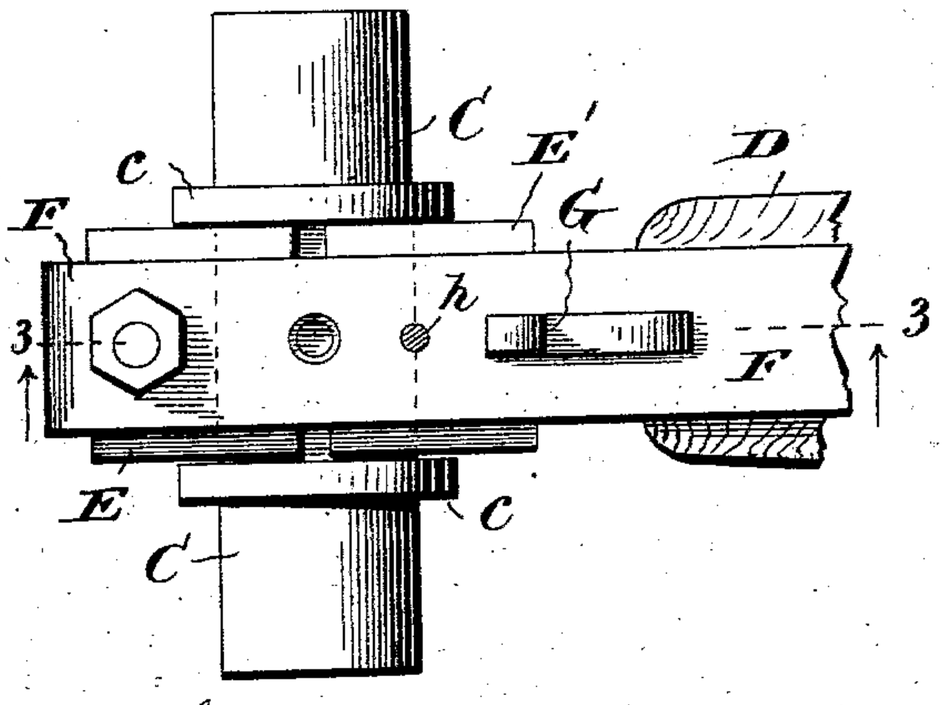
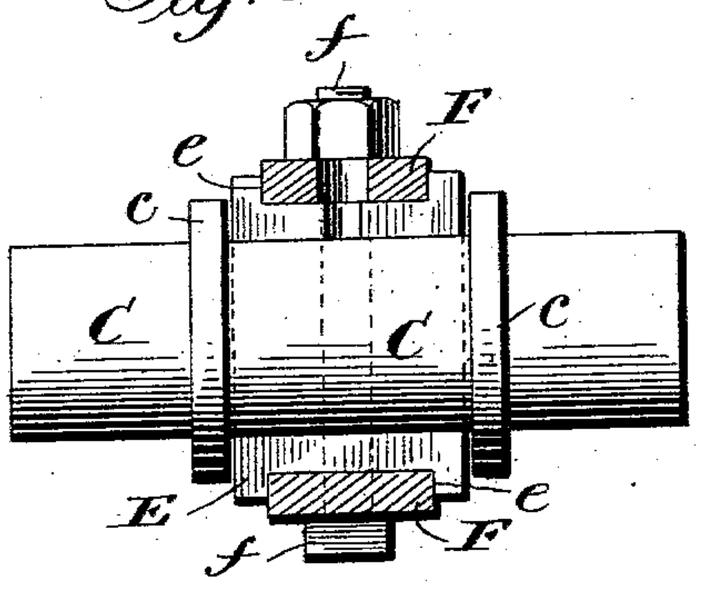


Fig. 5



Witnesses:
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No. 753,270. Patented March 1, 1904.

UNITED STATES PATENT OFFICE.

GEORGE D. HUNTER, OF BLOOMINGTON, INDIANA.

STONE-SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 753,270, dated March 1, 1904.

Application filed May 26, 1903. Serial No. 158,863. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. HUNTER, a citizen of the United States, residing at Bloomington, in the county of Monroe and State of Indiana, have invented certain new and useful Improvements in Stone-Sawing Machines; 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.

My invention relates to gang-saw stone-cutting machines, and has for its object to improve the construction of the noddle-head and pin employed to connect a swinging saw-gang frame with the reciprocating pitman actuated from some suitable source of power.

In the drawings I have represented my invention as embodied in a machine of the ordinary type commonly in use and have therefore shown only so much of the sawing and actuating mechanism as is necessary to the understanding of the application of my improvements thereto.

Figure 1 is a perspective view of a portion of the saw-gang frame, the noddle-head, and a fragment of the actuating-pitman. Fig. 2 is a side elevation of the noddle-head. Fig. 3 is a central vertical section of the same, taken on line 3 3 of Fig. 4. Fig. 4 is a top plan view of the noddle-head, and Fig. 5 is a section on line 5 5 of Fig. 3.

A represents the lower cross-head of the saw-gang frame.

B B indicate depending arms connected thereto, C the noddle-pin, suitably journaled in said arms, and D a pitman connected at one end with said noddle-pin and at the other with some suitable source of power, (not shown,) whereby when said pitman is set in motion the saw-frame is reciprocated thereby in the usual manner.

One difficulty hitherto experienced in the use of a connection such as that above described has arisen from the fact that the connection of the pitman with the noddle-pin affords wide bearing-surfaces at its ends, which contacting with the depending arms B creates an undesirable amount of friction and undue wearing of the parts. To overcome this difficulty, I have embodied in my improved noddle-head a novel form of pin and coupling, which I will now describe.

The pin C is provided intermediate its ends with a pair of annular flanges *c* so disposed relative to the arms B that when the parts are assembled they are separated slightly from the arms nearest their respective ends. Bearing-blocks E E′, each provided with a channel or bearing-surface substantially semicircular in section, are arranged to take over said pin between the flanges *c* and are retained in place by metallic straps F F, secured to the top and bottom of the pitman D and engaging with recesses or channels *e e*, extending transversely across the upper and lower sides, respectively, of the bearing-blocks E E′. The straps F are preferably bent inward at their free ends to embrace one of the bearing-blocks E, said block being rigidly secured to the straps by a suitable bolt *f*. The opposing bearing-block E′ is adjustable relative to the stationary block and is channeled at its rear face for the reception of an adjusting-wedge G, taking through suitable apertures in the straps F and serving to hold the bearing-blocks in proper adjustment relative to the noddle-pin. It will thus be seen that the side bearing-surfaces of the pitman-connecting means will be limited to the small area of the flanges *c*, thus reducing greatly the friction incident to the movement of the parts and saving entirely from wear the lateral faces of the depending arms B. Another advantage incident to this construction is that the pitman is positively held against lateral play, with attendant economy of power and increase of efficiency. I have further found it advantageous to provide a housing for the noddle-pin and the bearing-head of the pitman in order to exclude grit and dust from the bearing, and so further reduce friction and wear upon the parts. This housing I have in the accompanying drawings represented as a whole by H. It consists of a box-like casing open on its under side, adapted to fit over the end of the pitman-connecting devices and to extend rearwardly between the flanges *c* and the depending arms or hangers B, thereby affording protection to the entire bearing. This housing is preferably made from a single piece of sheet metal

formed from a blank after the manner of an ordinary box and having its overlapping seams fastened in any desirable manner at the ends of the housing. The front end of the housing is completely closed, its sides and rear end being provided with recesses of suitable size and shape to take over the pin C and the straps F, respectively. The top of the housing is provided with suitable apertures to receive the retaining-bolts *h* for securing the same to the strap F and with a recess to permit the passage of the wedge G. Other apertures may be made therein as required—as, for example, to receive the stem of an oil-cup I for supplying a lubricating fluid to the bearing.

By the above construction I provide a cheap and simple housing for the bearing of the noddle-head which will efficiently protect the same and greatly add to the life of the parts by minimizing friction and wear.

Another advantage incident to the use of my improved pin is that the arms or brackets supporting the same may be separated as widely as may be found expedient, so distributing the strain upon the saw-frame without any increase in the width of the pitman-head and without permitting lateral play thereof.

While I have herein described my invention as embodied in a gang-saw stone-cutting machine and have referred throughout the specification and claims to a "saw-gang frame" and the like, I do not desire to limit myself to the use of this invention in connection with this particular type of machine. The particular application described is for the purpose of illustrating a practical embodiment of the invention, and I contemplate the use thereof in connection with any type of sawing-machine having a reciprocating saw-carrying member.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gang-saw stone-cutting machine, a saw-gang frame, a noddle-pin suitably supported by and journaled at its ends, flanges fixedly secured to said pin intermediate its bearings and connections between said pin and a moving part arranged between the flanges, substantially as described.

2. In a gang-saw stone-cutting machine, a saw-gang frame, a noddle-pin operatively associated therewith, journals for the pin, an actuating member connected with the pin intermediate its ends, and means fixedly secured to said pin interposed between the actuating member and the journal for maintaining them in separated positions, substantially as described.

3. In a gang-saw stone-cutting machine, a saw-gang frame, a noddle-pin operatively associated therewith, having annular flanges fixedly secured to said pin intermediate its ends, journals for the pin, and an actuating-pitman connected with the pin intermediate the flanges, substantially as described.

4. In a gang-saw stone-cutting machine, a saw-frame, a noddle-pin associated therewith, an actuating-pitman, a bearing-head carried by the pitman, and a housing for said bearing carried by the head and having depending portions cut away to receive the noddle-pin and the actuating-pitman, substantially as described.

5. In a gang-saw stone-cutting machine, a saw-gang frame, a noddle-pin operatively associated therewith, having flanges fixedly secured thereon, a pitman having a bearing connection with said pin intermediate the flanges and a housing taking over the bearing beyond the flanges, substantially as described.

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

GEORGE D. HUNTER.

Witnesses:
J. M. HARROW,
FRANK P. WOODWARD.