

(No Model.)

J. G. KOUHOUP.
STONE CUTTING MACHINE.

No. 540,104.

Patented May 28, 1895.

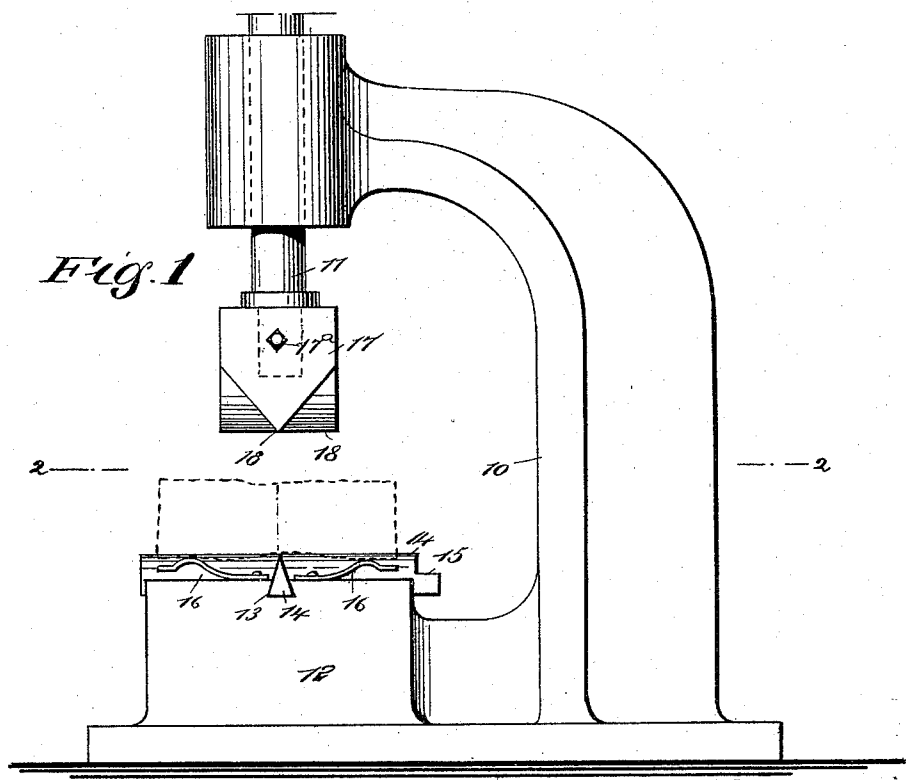
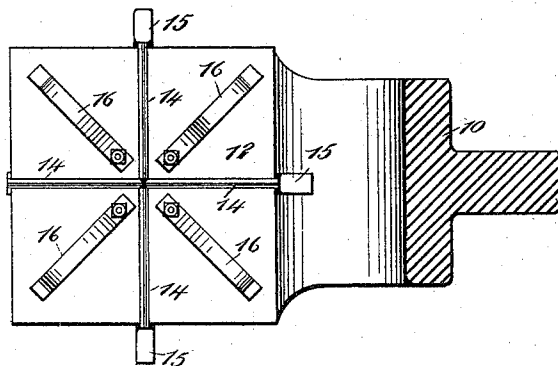
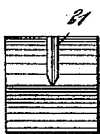
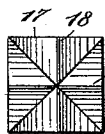


Fig. 2



WITNESSES:

John Bergstrom
W. P. Hutchinson



INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN G. KOUHOUP, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO HIMSELF,
MORRIS FEDER, AND SAMUEL JERKOWSKI, OF SAME PLACE, AND HER-
MAN LOWENTHAL, OF NEW YORK, N. Y.

STONE-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 540,104, dated May 28, 1895.

Application filed January 15, 1895. Serial No. 534,994. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. KOUHOUP, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Stone-Cutting Machine, of which the following is a full, clear, and exact description.

My invention relates to improvements in stone cutting machines; and the object of my invention is to produce an extremely simple machine or rather an attachment to an ordinary trip hammer, which machine or attachment is adapted to rapidly split or cut stones and is especially adapted to form cobblestones or other small stone blocks, and which may be readily adapted so as to split a block into any necessary number of pieces.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a part of an ordinary trip-hammer provided with my improved attachments. Fig. 2 is a sectional plan on the line 2 2 of Fig. 1. Fig. 3 is an inverted plan view of a die adapted to split a stone into four parts. Fig. 4 is an inverted plan of a die which is adapted to split a stone into three parts, and Fig. 5 is an inverted plan of a die which is adapted to divide a stone into two parts.

The drawings illustrate an ordinary trip hammer frame 10 having a vertically reciprocating plunger 11, and the usual anvil 12, but no mechanism is shown for actuating the plunger as this mechanism has nothing to do with my invention and any usual means may be employed. The anvil is shown provided with dovetailed cross grooves 13 which cross the anvil face at right angles and which are adapted to receive the knives 14, the edges of which project a little above the face of the anvil, and the knives are preferably flattened at their outer ends to form handles 15 by grasping which any knife may be readily inserted or removed.

The knives 14 are broad at the base so that they can well withstand a shock of a blow, and the knives meet at the center in order that they may be conveniently arranged, as described below, to divide a stone into the necessary number of pieces.

Arranged diagonally between the knives 14 are springs 16 which are fastened at their inner ends, and the free ends of which extend upward to about the level of the knife edges, these springs serving as supports for a stone which rests on them as well as the knives, as shown by dotted lines in Fig. 1, and is thus steadied so that a descending die may strike evenly upon it. The device may be used without these spring stone-holders if desired, without affecting the principle of the invention.

If a stone is to be divided into four parts the four knives 14 are arranged in the anvil, as shown in Fig. 2, but if the stone is to be divided into three parts one of the knives is removed and if it is to be divided into two parts, two of the knives are removed. This arrangement provides for shaping rectangular blocks, but it will of course be understood that the anvil may be provided with any necessary number of knives without departing from the principle of the invention.

In connection with the anvil and knives, dies are used, which are secured to the plunger 11 and which have cutting edges corresponding to the knives on the anvil. The die 17 has consequently four cutting edges 18 to correspond with the four knives 14, and the die is adapted to be secured to the plunger 11 by a bolt 17^a, and when used a stone is placed upon the four knives 14 and the plunger descending causes the die to give a sharp blow to the stone and the effect of the edges 18 on the die and the blade 14 is such as to cause the block to split into four parts. If, however, a stone is to be split into three pieces, one of the knives 14 is removed and a die 19 used, which die is provided with cutting edges 20 and 21, the former extending entirely across the face of the die and the latter half way across and at right angles to the former, so that the cutting edges will align with the three knives on the anvil,

while if a stone is simply to be divided into two parts a die 22 is used which has a cutting edge 23 extending diametrically across it, and in connection with this die only two
5 knives 14 are used which align longitudinally.

It will be seen from the foregoing description that the machine may be readily adjusted to cut stones into any necessary number of parts, and it is not usually necessary
10 to change the knives 14 and dies often, because the stones which are large enough to split into four pieces, may first be used, after which the machine may be made to split three
15 piece stones and a quantity of these fashioned, and then the still smaller stones may be split into two parts.

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

20 1. The combination of the frame carrying a

stationary anvil provided with converging slideways and knives removably fitted therein and a die having reciprocating movement in the anvil-carrying frame and provided with cutting edges registering with the knives of
25 the anvil, substantially as described.

2. An anvil provided with knives projecting from its upper surface and stone-holding devices arranged obliquely in relation to the knives, substantially as described. 30

3. An anvil provided with slideways arranged perpendicular to one another and adapted to receive knives and yielding stone holders located substantially diagonally between the slideways, as set forth.

JOHN G. KOUHOUP.

Witnesses:

FRANK H. STILES,

HARRY TERHUNE.