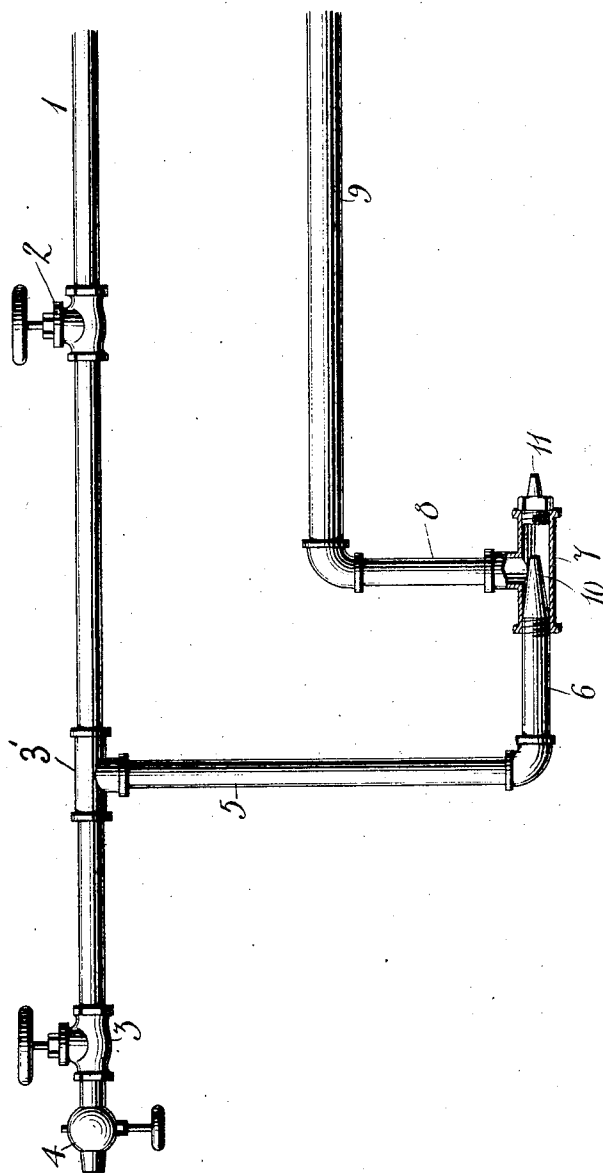


No. 832,160.

PATENTED OCT. 2, 1906.

M. RICHEY & J. W. DYKES.
FILE CUTTING MACHINE.
APPLICATION FILED APR. 3, 1905.



Witnesses

H. J. Parker
C. H. Griesbauer.

Inventors
M. Richey and J. W. Dykes.
by *A. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

MICHAEL RICHEY AND JOHN W. DYKES, OF DENNING, ARKANSAS.

FILE-CUTTING MACHINE.

No. 832,160.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed April 3, 1905. Serial No. 253,657.

To all whom it may concern:

Be it known that we, MICHAEL RICHEY and JOHN W. DYKES, citizens of the United States, residing at Denning, in the county of Franklin and State of Arkansas, have invented certain new and useful Improvements in File-Cutting Machines; and we do 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 improvements in sand-blast sharpening and polishing apparatus, and more particularly to an apparatus which is especially designed for use in sharpening files, rasps, and the like.

The object of the invention is to provide a simple and efficient device of this character which may be produced at a comparatively small cost and by means of which files may be quickly and easily cleaned and sharpened.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawing we have shown a diagrammatic view, partly in section, of an apparatus constructed in accordance with our invention.

Referring to the drawing by numeral, 1 denotes a steam-supply pipe made in sections leading from a boiler or other suitable source of supply and containing two controlling-valves 2 and 3, which may be of any desired form and construction, said valves being secured, respectively, to each section of the pipe. The valve 3 is located at one end of one of the sections of the pipe 1 and has connected to it a petcock 4. Connected to the sections of pipe 1 between the valves 2 and 3 is a T-coupling 3', having a branch pipe 5, which has an extension 6 at right angles therewith and provided with a cone-shaped injector 10, projecting into an ejector-head 7, which is connected to the lower end 8 of a pipe 9, through which sand or sand and water is supplied to said ejector-head 7. The latter is in the form of a T-coupling, the end 8 of the pipe 9 being connected to one of its branches and the cone-shaped or con-

tracted discharge end 10 of the portion 6 of the steam-pipe 5 being disposed in another of its branches and in alinement with a cone-shaped discharge-nozzle 11, provided in its third branch. It will be seen that the jet of steam discharged from the contracted mouth 10 of the steam-pipe will draw the sand or water and sand down through the pipe 8 and eject the same out of the nozzle 11 against the file, rasp, or other object to be sharpened. By providing the branch pipe 5 between the valves 2 and 3 and locating the petcock 4 at the end of said pipe 1 the wet steam and water of condensation may be let off through said petcock, so that the steam passing through the branch pipe 5 will be dry.

From the foregoing description, taken in connection with the accompanying drawing, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

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

A file cleaning and sharpening apparatus comprising a horizontal sectional steam-pipe having a coupling and valves for securing the ends of the sections together, a petcock secured to one of said valves, a branch vertical steam-pipe also secured to said T-coupling of the main sectional steam-pipe and having a horizontal section secured thereto, a horizontal sand and water pipe having a vertical branch pipe an approximately T-shaped ejector-head having the branch pipe secured thereto and communicating therewith, a cone-shaped nozzle secured to and projecting from the ejector-head and the horizontal branch steam-pipe, having a cone-shaped injector mounted in the ejector-head which serves to draw the sand and water down through the vertical branch of the sand and water supply pipe and force the same through the ejector-nozzle, substantially as specified.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

MIKE RICHEY.
JOHN W. DYKES.

Witnesses:

J. W. MELTON,
W. C. MEEKS.