

J. H. GABLE.
Pipe-Cleaner.

No. 226,740.

Patented April 20, 1880.

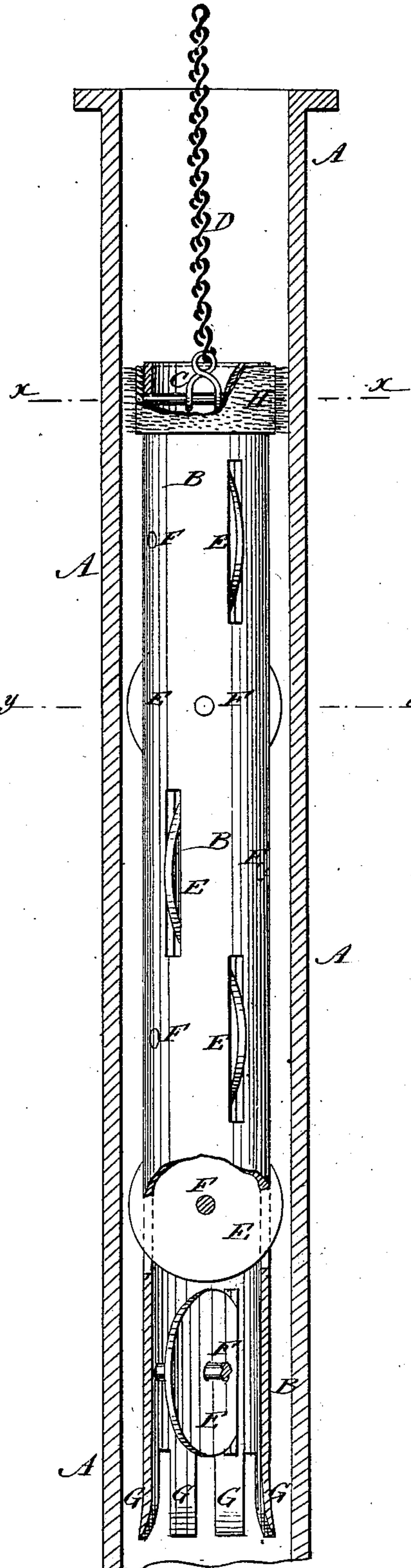


Fig. 1

Fig. 2

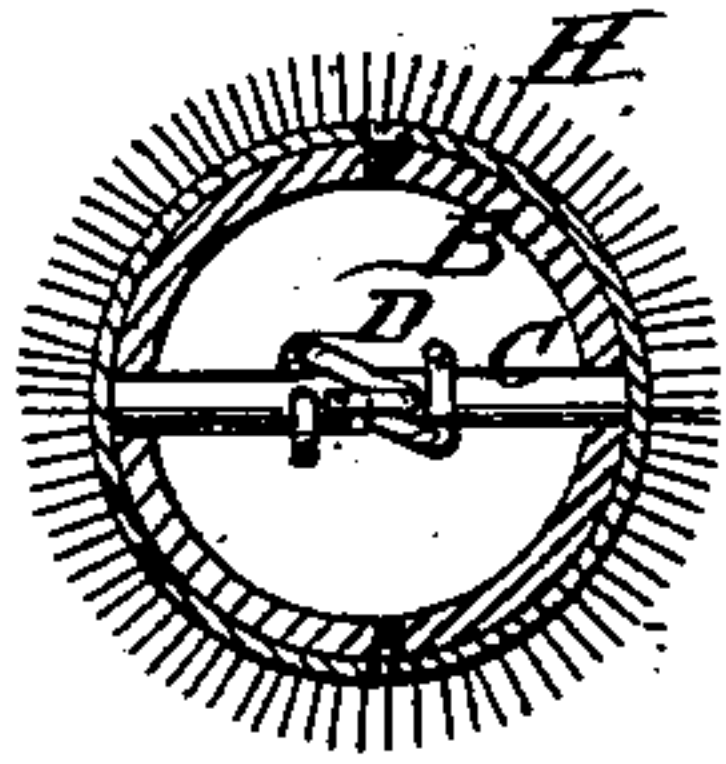
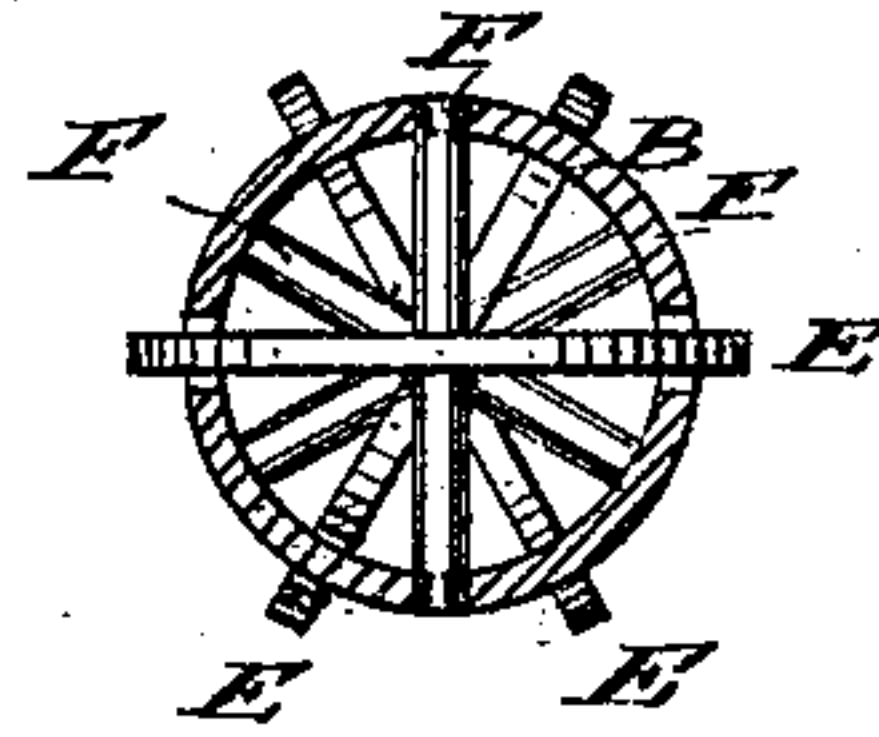


Fig. 3



WITNESSES:
C. Newell
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INVENTOR:
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BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN H. GABLE, OF SHAMOKIN, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND ROBERT JONES, OF SAME PLACE.

PIPE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 226,740, dated April 20, 1880.

Application filed December 30, 1879.

To all whom it may concern:

Be it known that I, JOHN H. GABLE, of Shamokin, Northumberland county, State of Pennsylvania, have invented a new and useful
5 Improvement in Pipe-Cleaners, of which the following is a specification.

Figure 1 is a side elevation, partly in section, of the improvement. Fig. 2 is a cross-section taken on the line *xx*, Fig. 1; and Fig. 3 is a cross-
10 section taken through the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish pipe-cleaners for cleaning deposits of sediment
15 from the inner surfaces of the column or pump pipes of mine shafts and slopes, and for cleaning out other pipes.

The invention consists of a pipe-cleaner formed of a cylinder or frame provided with
20 cutters to loosen the sediment, wheels to crush and pulverize the said sediment, and a brush to sweep the inner surface of the pipe, as will be hereinafter fully described.

A represents a section of a column or pump
25 pipe. B is a hollow cylinder or frame, of less diameter than the pipe A to be cleaned, so that it may move up and down through the said pipe A freely.

To the upper end of the cylinder or frame
30 B is attached a cross-rod, C, to which is attached the end of a chain or rope, D, for raising and lowering the cleaner.

E are the wheels, which may be made solid or skeleton, and are pivoted to rods F, attached
35 to the cylinder or frame B.

The wheels E are made of a greater diameter than the cylinder or frame B, so as to project through slots in the sides of the said cylinder or frame B, to bear against the inner surface
40 of the pipe A to crush and pulverize the loosened sediment, so that it will be carried out by the water passing through the said pipe A.

The wheels E are arranged at angles with each other, as shown in Figs. 1 and 3, so as to bear against all sides of the pipe A.

The lower end of the cylinder or frame B is slotted to form chisels or cutters G, or has chisels or cutters G attached to it, as shown in Fig. 1.

The ends of the cutters G are beveled upon
50 the inner sides to form chisel points or edges, to separate the sediment from the inner surface of the pipe A, so that it may be ground and pulverized by the wheels E.

To the ends of the cylinder or frame B is at-
55 tached a wire brush, H, to sweep and brush off the inner surface of the pipe A as the cleaner moves up and down.

In using the cleaner it is inserted in the end of the pipe A without stopping the pump, and
60 loosens, crushes, and pulverizes the sediment, so that it will be carried out by the water.

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

1. A pipe-cleaner constructed substantially as herein shown and described, consisting of the cylinder or frame B, the wheels E, the cutters G, and the brush H, as set forth.

2. In a pipe-cleaner, the series of wheels E,
70 pivoted within and projecting through a cylinder, B, placed successively one above another and at an angle to each other, to form a crusher, as described.

3. The cylinder B, provided with cutting-
75 edges G and wheels E, substantially as and for the purpose specified.

4. The cylinder B, provided with the wheels E and brush H, substantially as and for the purpose set forth.

JOHN H. GABLE.

Witnesses:

A. CALDWELL,
GEO. S. CLEMENS.