G. H. SANBORN.

MACHINE FOR SEPARATING IRON FROM SAND.

No. 61,471. Patented Jan. 22, 1867.

Fig. 2.

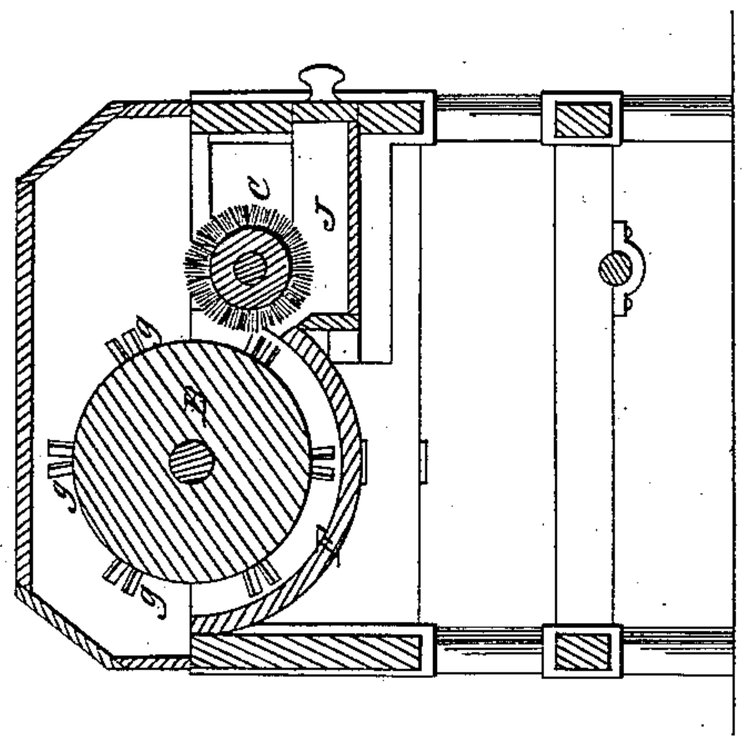
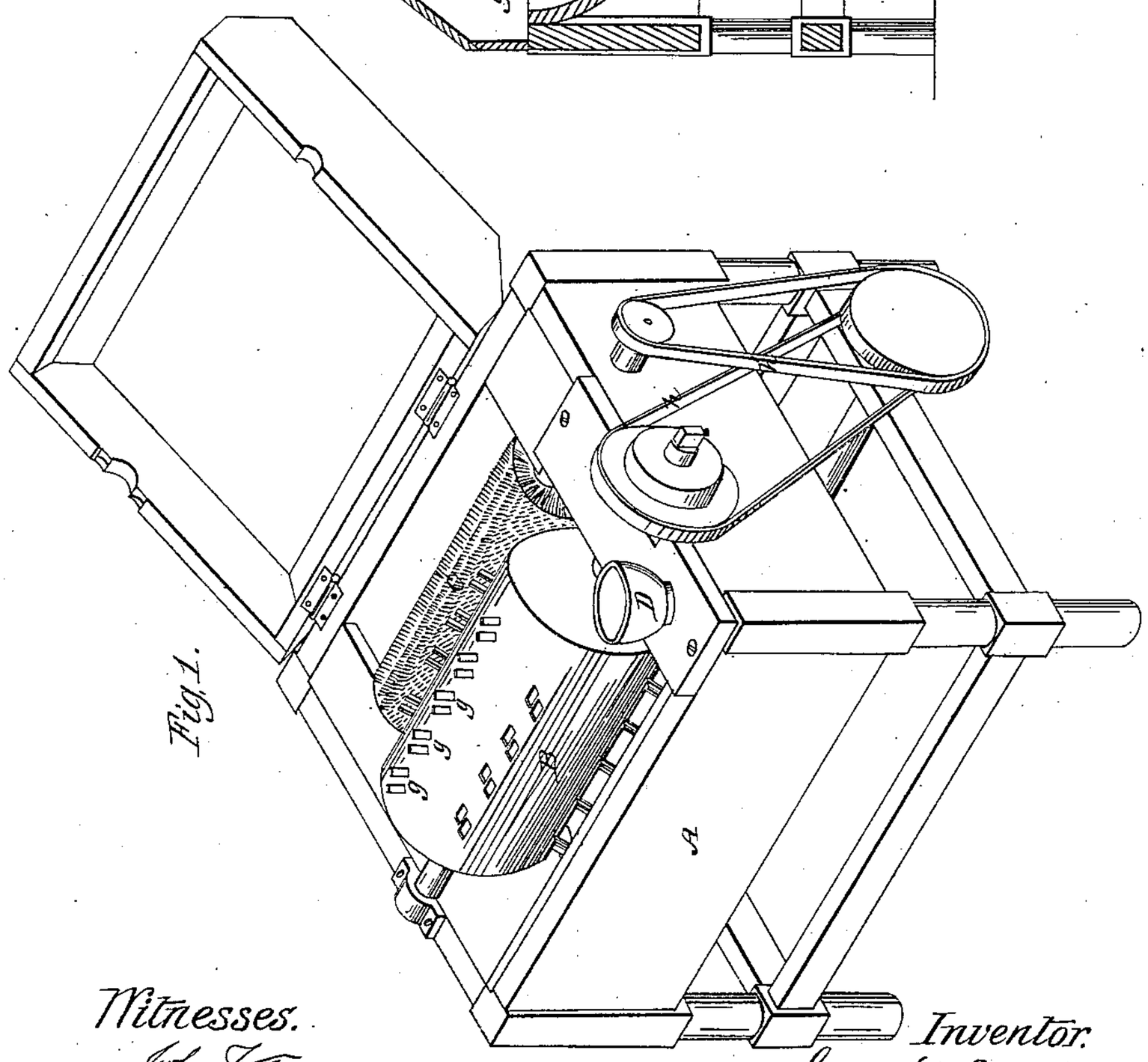


Fig. 1.



Witnesses.

John Taylor

R. R. Moffatt.

Inventor.

George H. Sanborn

By D. C. Cady

his atty.

United States Patent Office.

GEORGE H. SANBORN, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 61,471, *dated January* 22, 1867.

IMPROVED MACHINE FOR SEPARATING IRON FROM SAND.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE H. SANBORN, of Boston, Suffolk county, State of Massachusetts, have invented certain new and useful improvements in Machines for Separating Iron from Sand; and I do hereby declare the following to be a full and exact description of the same, reference being had to the drawings, which accompany and form a part of these specifications, in which—

Figure I is a perspective view of the machine with the top or cover thrown back, so as to bring the interior parts in view.

Figure II, a view of some of the interior parts of the machine.

Letter A, the exterior box; B, a horizontal cylinder; C, brush in cylindrical form, and kept revolving when the cylinder B revolves by being connected therewith by the wheels or pulleys; D, the hopper, into which the same is formed; E, spout from which the sand is discharged in a constant stream; F, trough or concave box lying beneath the cylinder B; *g g g g*, a series of permanent magnets, arranged in successive rows upon the cylinder B, as seen in Fig. I; *h h'*, two belts running on the pulleys, the one to rotate the cylinder B, the other brush C; J, a drawer lying beneath the brush C, and receives the iron brushed from the magnets.

The object of my invention is to provide a convenient machine for removing particles of iron from sand that is to be used for the manufacture of glass, or for other purposes wherein the presence of iron would be injurious. The drawings will give all needful information as to the general structure of the machine. The magnets are somewhat extended in width, and so placed on the cylinder that the flat surface of their extended sides may lie angular to the line of rotation of the cylinder B, and in such manner that their action, while kept in rotation, shall keep the sand that enters through the hopper D constantly moving towards the spout E along the trough F. As the above is going on, the numerous magnets on the cylinder B are constantly taking out the iron particles, which, being brushed off by the action of the revolving brush C, drop into the drawer J, and are easily disposed of. This machine may be worked by hand, or any other power most convenient.

I claim the use of the cylinder B when provided with the magnets *g g g*, one or more rows, arranged substantially as and for the purposes described, in combination with the brush C, the hopper D, the spout E, the trough F, and the drawer J, substantially as and for the purposes set forth.

GEORGE H. SANBORN.

Witnesses:

LYMAN MASON,

CHAS. A. GREEN.