G. AMES.

Apparatus for Preventing Rapping Noise in Machinery.

No. 139,227. Patented May 27, 1873.

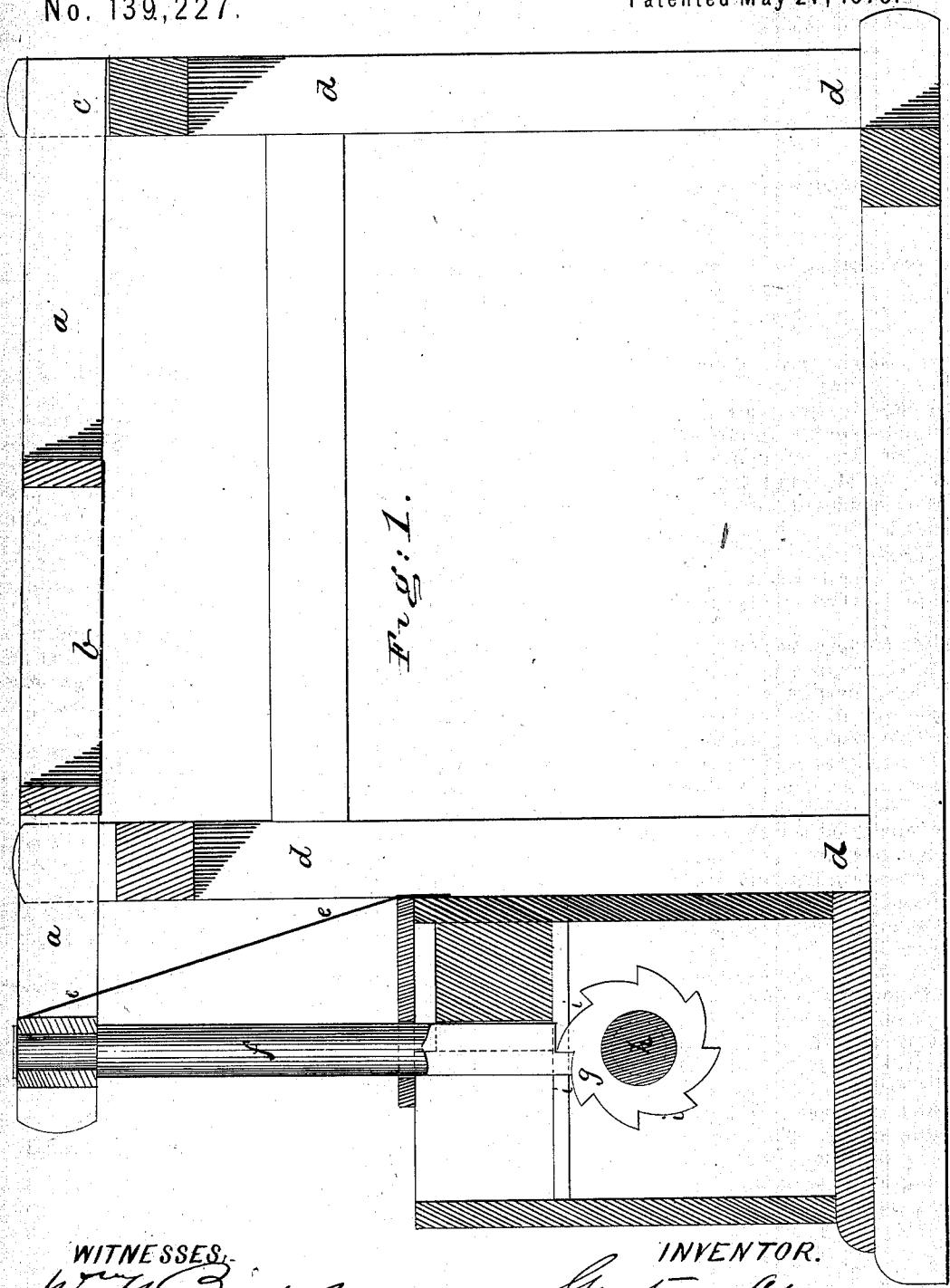


Fig. 1.

WITNESSES.

Wm. H. Bishop

Phillips Abbott.

INVENTOR.

Gustavus Ames
by his attorney

Jeff. M. Keller

# UNITED STATES PATENT OFFICE.

GUSTAVUS AMES, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN APPARATUS FOR PREVENTING RAPPING NOISE IN MACHINERY.

Specification forming part of Letters Patent No. **139,227**, dated May 27, 1873; application filed February 5, 1873.

*To all whom it may concern:*

Be it known that I, GUSTAVUS AMES, of Rochester, in the State of New York, have invented a certain Improvement in an Apparatus for Preventing Rapping Noise in Machinery for Making Paper, which is applicable to other machinery, of which the following is a description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a vertical section of my improvement.

In machinery for making paper the screen-plates are composed of sheet metal with narrow slots, through which the pulp must pass on the way to the vellum or wire-gauze on which the paper is formed. The said screen-plates receive a rapid shaking motion, received from a series of cams on a rotating shaft. The noise produced thereby is a source of serious annoyance, and the object of said invention is to avoid such rapping noise.

In the accompanying drawing, *a* represents the frame, which carries the screen-plates *b*, on which the pulp is delivered to be screened that none but the fine pulp may pass to the vellum or wire-gauze to be made into paper. This frame is hinged at *c* to the main frame *d*, and its opposite end drawn down by a spring, *e*, or equivalent means; and it is provided with a vertical rod, *f*, the lower end of which rests on the periphery of a cam-wheel, *g*, on a shaft, *h*, which receives a rotary motion from some suitable motor. The periphery of the cam-wheel *g* is formed with a series of cams, *i*, which gradually lift the rod *f* and frame *a* and permit them to drop quickly.

Now, to avoid the noise resulting from the rapid lifting and dropping of the rod and frame with its screen-plate, I combine with the screen-frame and rotating cam or equivalent tappets a surrounding case containing liquid tar or equivalent liquid, the rod *f* passing through a suitable hole in the cover of the case to prevent waste. The liquid thus interposed between the lower end of the rod *f* and the cam-wheel effectually avoids the rapping noise heretofore experienced.

I have named liquid tar as the liquid to be used because I have found that the most efficient liquid for the purpose, although other liquids (such as oil) will answer a good purpose.

Instead of one, two such apparatuses may be used—one at each side of the frame; and although I have above described my said invention, as applied to the vibrating screw-of a machine for making paper, I do not wish to be understood as limiting my claim of invention to such machinery, as it will be obvious that the same thing may be applied to any kind of machinery where the rapping of parts produce disagreeable noise.

What I claim as my invention, and desire to secure by Letters Patent, is—

The case for containing liquid tar or equivalent liquid, in combination with the vibrating frame and cam-wheel, substantially as and for the purpose specified.

GUSTAVUS AMES.

Witnesses:
JOHN CLARK, Jr.,
ISAAC F. RULIFFERN.