P. DEMING.

Sound Deadening Cases for Type-Writers.

No. 197,833. Patented Dec. 4, 1877.

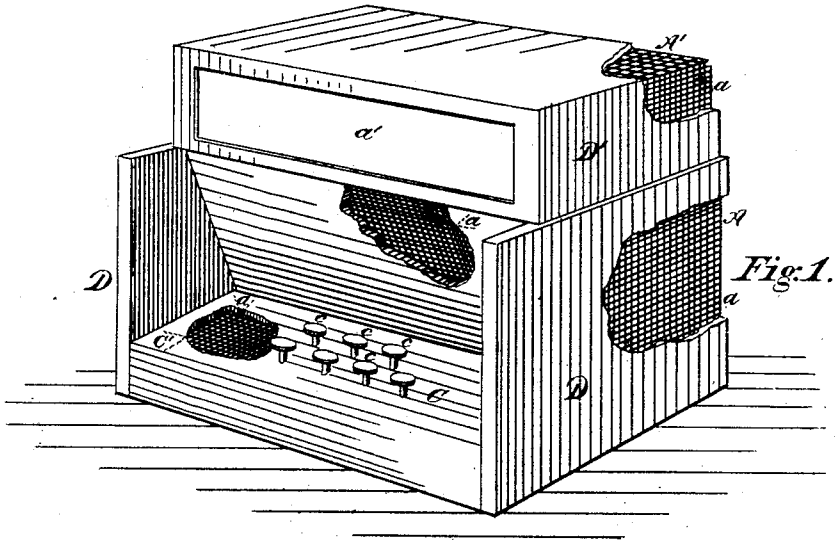

Fig. 1.

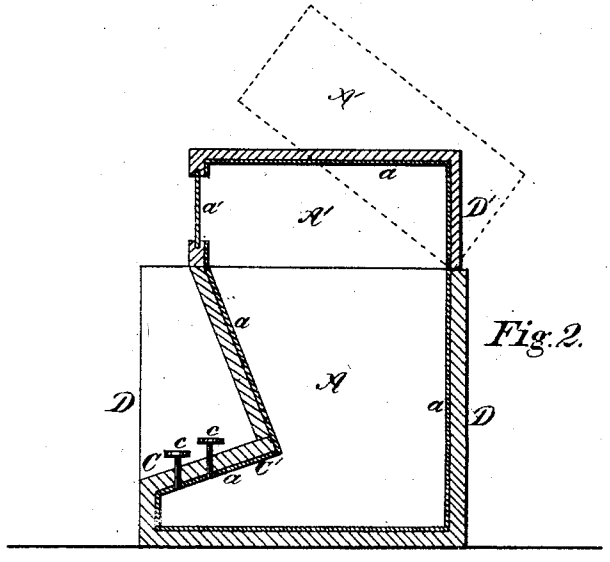

Fig. 2.

Witnesses: Chas. H. Gay, Chas. J. Secrist

Philander Deming, Inventor.

UNITED STATES PATENT OFFICE.

PHILANDER DEMING, OF ALBANY, NEW YORK.

IMPROVEMENT IN SOUND-DEADENING CASES FOR TYPE-WRITERS.

Specification forming part of Letters Patent No. **197,833**, dated December 4, 1877; application filed October 12, 1877.

To all whom it may concern:

Be it known that I, PHILANDER DEMING, of the city and county of Albany, State of New York, have invented certain new and useful Improvements in Sound-Deadening or Sound-Muffling Cases for Type-Writers, which improvements are all clearly described in the following specification and accompanying drawings, in which—

Figure 1 represents a perspective view of a sound-muffling or sound-deadening case embodying the features of my invention, and Fig. 2 is a sectional elevation of the same.

The object of this invention is to provide for the various type-writers in general use a sound-muffling or sound-deadening case, that so incloses the parts that an operator may readily view the work as it is being done, and have ready access to the same, while the annoying monotonous clicking noise produced by the type-writer in operation is perfectly deadened, and the type-writers thereby adapted in a greater degree for the different purposes for which they are intended.

The invention consists of a sound-muffling case or envelope formed of fabric or glass, or in part of each, or of other sound-deadening material. The front part, at least, is preferably of glass or mica, or some transparent substance that will stop sound, because the operator can see the work through such material.

There is a door or cover at such part of the case or envelope as will admit ready access to the work.

In the drawings, *a* represents that part of the envelope or case which is formed of fabric, and *a'* that part of it which is formed of glass, or some transparent substance. This envelope or case entirely incloses the noise-producing machinery of the type-writer.

In order to distinguish the main part of this envelope or case from that part of it which is the cover or door the main part is marked A, and the cover or door A'. In Fig. 2 the dotted lines show the cover or door raised up or open.

That part of the case or envelope which is formed of fabric, such as felt or velvet or cloth, may require some support and protection. That part of the envelope composed of soft fabrics may, therefore, be jacketed with wood or pasteboard, or other stiff material. The envelope may be a lining attached to the jackets.

In the drawings, D represents a jacket covering the main part of the envelope, and D' the jacket of the door or cover, so far as a jacket may be required, the glass *a'* not being jacketed.

C represents that part of the envelope through which the keys *ccc* project through holes pierced in the envelope, to the outside or exterior of the envelope, in order to constitute the key-board externally to the envelope.

C' represents that part of the jacket D which covers C. There are holes through C' for the keys to come through, corresponding with the holes in C. The sound is more likely to escape through C than through any other part of the envelope. C', therefore, is preferably made of non-sounding material, such as rubber supported by pasteboard, in order that it may aid the office of the envelope C, and be in effect and substantially a part of it. It is not essential that there should be anything corresponding to a jacket in this part of the envelope, but only that there shall be a sufficient envelope, so sustained as to answer its purpose.

It is desirable, in adapting the type-writer to its case, that the type-writer shall rest upon rubber or other non-sounding supports, in order that the vibrations may not pass downward into the bottom of the case, and so produce a noise that will be heard outside.

I do not regard the jackets as essential in constructing these cases. I do not limit myself to particular kinds of material in the construction of these cases or envelopes. A good envelope is made by using concentric paper boxes for the walls. This way uses an air-space between the inner and outer wall of the envelope, to aid in stopping the sound. A good envelope is made also by having its outside wall of pasteboard, and inside wall of rubber packing, with a layer of felt-cloth between them. The felt cloth serves as an air-space without having any air-space. An excellent case is made by using merely glass, except at the place where the keys emerge from the envelope, at which point rubber is used, because it is convenient to make holes through that material. A plate of glass, whether thick or

thin, is an effectual sound-stop, when so placed that it does not touch the vibrating body which produces the sound.

The sound-muffling or sound-deadening case or envelope, which I have described above, can be adapted for use with any form of type-writer, by having its shape correspond to that of the type-writer, and it operates to render the type-writer noiseless, so that it can be employed for reporting in courts, churches, &c., as well as for general office purposes, without causing any annoyance.

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

1. A sound-muffling case for type-writers, constructed substantially as described, provided with a door for ready access to the work, and a window for observing the same, substantially as set forth.

2. A sound-muffling case for type-writers, constructed substantially as described, provided with a door for ready access to the work, and a window for observing the same, and having the keys exposed so as to be operated without opening the case, substantially as set forth.

PHILANDER DEMING.

Witnesses:

WILLIAM LACY,

THOMAS AUSTIN.