

C. M. Lindsay,
Stringing Pianos.
No. 107,391. *Patented Sept. 13, 1870.*

Fig. 1.

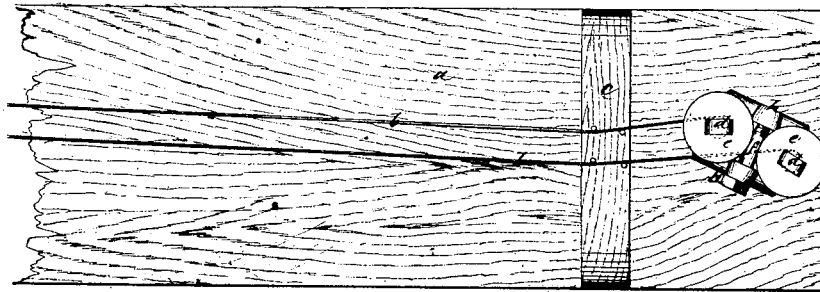


Fig. 3.

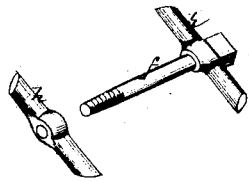
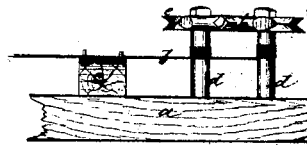


Fig. 2.



Witnesses:
H. J. Smith
E. A. Pratt

Chas. M. Lindsay, Inventor.
by *Wm. V. C.*
His Attorneys

United States Patent Office.

CHARLES M. LINDSAY, OF FORRESTON, ILLINOIS.

Letters Patent No. 107,391, dated September 13, 1870.

SCREW-CLAMP FOR PIANO-PINS.

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, CHARLES M. LINDSAY, of Forreston, in the county of Ogle and State of Illinois, have invented a new and improved Screw-Fastener for Piano-Pins; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is plan view;

Figure 2, a side elevation; and

Figure 3, a perspective view.

This invention has for its object to prevent the pins to which the ends of the strings of pianos or other stringed musical instruments are fastened, and by turning which the strings are tightened, from turning backward under the strain to which they are subject when the strings are taut.

The invention consists of a stem, having an exterior screw-thread running for a little distance from one end, and at the other end a four-sided or polygonal head, in combination with two cross-bars, one of which is furnished with a threaded socket of proper size to be fitted by the threaded part of the stem, and the other of which has an orifice large enough to pass the stem through, this instrument being intended for use in connection with disks fixed on the heads of pianopins, and having grooved peripheries, between any two of which disks the stem, with one of the cross-bars

on it, is passed, and then turned into the socket of the other cross-bar, after which, by applying a wrench to the head of the stem, the latter may be turned until the cross-bars are drawn as tightly into the grooves of the disks as may be necessary, in order to prevent the same from rotating backward.

In the drawing—

a is a part of a piano-frame;

b are strings of the instrument;

c is the bridge over which the strings pass;

d are the pins to which the ends of the strings are fastened;

e are the grooved disks fixed on the heads of the pins;

f is the cylindrical stem; and

h are the cross-bars.

The stem and cross-bars should be made of hardened steel, and the disks of any softer metal.

Having thus described my invention,

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

The stem *f* and cross-bars *h*, constructed and operating as and for the purpose described.

CHARLES M. LINDSAY.

Witnesses:

JOHN C. GALBRAITH,

D. H. REYNOLDS.