

Patented July 26, 1859.

This technical drawing illustrates a mechanical assembly, possibly a pump or engine component. The top portion shows a cross-section of a cylinder with a piston and connecting rod. The piston is labeled 'a' and the connecting rod is labeled 'b'. The cylinder is labeled 'c'. The piston is connected to the connecting rod via a pin joint. The connecting rod is connected to a crankshaft. The crankshaft is labeled 'd'. The piston is shown in a position where it is about to compress the fluid in the cylinder. The connecting rod is shown in a position where it is about to transmit force to the crankshaft. The cylinder is shown in a position where it is about to receive fluid from the inlet. The inlet is labeled 'e'. The outlet is labeled 'f'. The drawing is a detailed technical illustration of a mechanical device, showing the internal components and their arrangement.

[illegible]

Inventor;
John W. Fisher

UNITED STATES PATENT OFFICE.

JOHN U. FISCHER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND CHARLES S. FISCHER, OF SAME PLACE.

PIANOFORTE.

Specification of Letters Patent No. 24,905, dated July 26, 1859.

To all whom it may concern:

Be it known that I, JOHN U. FISCHER, of the city, county, and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Dampers for Pianofortes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of my said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a plan showing the outlines of a piano, with my improvement in the dampers applied thereto, and Fig. 2, is an elevation of my said improvements in the dampers with the case of the instrument partly in section.

Similar marks of reference denote the same parts.

In the attachment between the dampers and the pedal, in those instruments now generally made with the dampers above the strings, it is usual to raise the dampers by a rocking or inclined movement given to the plate on which the heels or fulcrums of the dampers are attached. This motion brings considerable strain on both the dampers, fulcrums, and plate, because of the length of these weighted dampers from their fulcrum, hence the jaws or fulcrums are often injured and sometimes swing around sideways in a manner that prevents the dampers taking the proper strings when they fall.

The nature of my said invention consists in providing a bar beneath the dampers and above the edge of the rest plank, acted on by the pedal in such a manner that said bar is lifted and raises the outer ends of the dampers, allowing the inner or fulcrum ends to remain in their jaws on the plate which in this instance is stationary. Thus the strain is removed from the fulcrums of the dampers, and the whole pedal attachment works much more easily and is more durable.

In the drawing *a*, are the legs; *b*, the case; *c* the key board; *e*, the rest plank; *f* the bridge and plate; *g* the strings and *h*, the sounding board, all constructed in any desired manner and forming an ordinary pianoforte.

i, i, are the dampers attached by the fulcrum jaws 1, 1, to the bearing plate *k*, that is stationary, and is secured to the piano by screws or other convenient attachments. I have only represented a few of the dampers and strings, the more clearly to show my invention.

l, is a bar. I prefer metal as being stronger when of the small size necessary for introduction between the dampers and the strings; this bar *l*, should be curved to correspond with the rest plank and is provided with vertical pins or rods 2, passing through holes in the rest plank, and setting onto levers *m, n*, that are on fulcrums 3, and 4, in the side of the rest plank block (*o*).

5 is a spring to throw up the levers *m, n*, where the ends come together and lower the outer ends and the bar *l*, except when the pedal *p*, raises said bar *l*, through the rod 6, lever *q*, and link 7, to the levers *m, n*, thus the dampers are raised by lifting the bar *l*, up under their outer ends as before set forth.

Having thus described my said invention, what I claim and desire to secure by Letters Patent is—

The bar *l*, beneath the dampers *i, i*, and above the piano strings, actuated by the levers (*m, n*,) or their equivalents in the manner and for the purposes specified.

In witness whereof I have hereunto set my signature this thirtieth day of June 1859.

JOHN U. FISCHER.

Witnesses:

LEMUEL W. TERRELL,
THOS. GEO. HAROLD.