No. 10,446. PATENTED JAN. 24, 1854.

S. B. DRIGGS.

ATTACHMENT FOR PIANOFORTES.

Fig. 1.

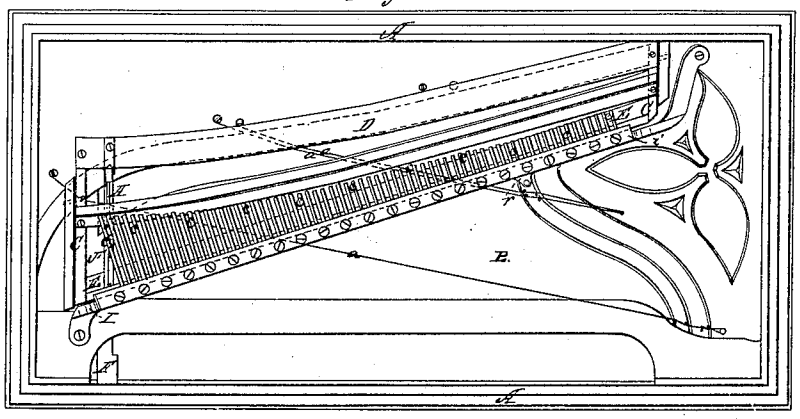
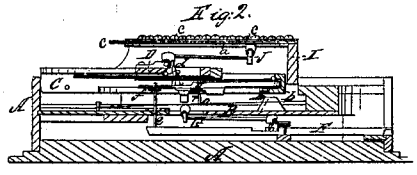


Fig. 2.



UNITED STATES PATENT OFFICE.

SPENCER B. DRIGGS, OF DETROIT, MICHIGAN.

ATTACHMENT TO PIANOFORTES.

Specification of Letters Patent No. 10,446, dated January 24, 1854.

To all whom it may concern:

Be it known that I, SPENCER B. DRIGGS, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Attachment to Pianofortes, which I denominate the Linguine Attachment; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a plan view of the interior of a pianoforte, with the "Linguine attachment." Fig. 2, is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts, in each of the two figures.

The nature of this invention consists:—

1st. In combining with the pianoforte or other stringed instrument of a similar nature, a series of metallic musical tongues or springs, in such a manner that each key, at the same time that it actuates one of the regular series of hammers, to strike a string, shall also actuate one of another series of hammers, to strike one of the tongues, and thereby produce a combination of two musical sounds.

2nd. It consists in a certain method of connecting the striking actions of the strings and tongues, whereby both are actuated by the key, simultaneously.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction and operation thereof.

A, represents the case of a horizontal square pianoforte, in which the strings and sounding-board, B, are arranged in the ordinary way.

The strings, *a*, *a*, are represented in red color, but a small number only are shown, as that is sufficient to explain their position relatively to the tongues of the Linguine attachment.

The keys, F, and the hammers, G, which strike the strings, are arranged and connected in the ordinary way; any striking action being used which may be thought best.

The damper frame, C, D, E, and the dampers, H, are arranged in the manner thought most convenient; the dampers being attached at, *b*, to the front part, E, of their frame, in such a manner that their back ends may move up and down freely.

The linguine attachment is placed above the strings; the tongues or springs, *c*, *c*, being secured firmly in any suitable way to a strong bar, I, which is secured in the pianoforte in the most secure way, and connected with the sounding-board, B, by a bolt or rod, *r*. The tongues and the bar may be of steel or of any other metal that may be found or considered more suitable. I have shown the tongues arranged horizontally; believing that to be the most convenient arrangement: though that position may be changed, if desirable.

The back rail, D, of the damper frame, forms the hammer rail for the attachment of the hammers, J, (only one of which is shown,) by which the tongues of the linguine attachment are struck and put into vibration. The hammer is connected to the hammer rail, in the same way as the hammer of an ordinary pianoforte action, and is actuated by a jack, *d*, of well known form attached to the damper, H, in the same manner as similar jacks are attached to the key. The damper is made to actuate the key in the same manner as though the jack were attached to the latter; the jack being brought into operation every time the damper is raised from the string by the key, when the pianoforte action is brought into play; the damper being raised by a rod, *e*, attached to the back end of the key, and working freely in a hole in the end of the damper, but having a shoulder, *f*, which catches under the damper and lifts it.

The several parts of the attachment are shown in the drawing, in their positions when the hammers have struck the string and tongue, but not yet fallen; the damper (as will be seen in Fig. 2,) being raised from the string.

Any form of pianoforte action may be employed for playing the linguine attachment.

The arrangement of the tongues, *c*, *c*, with regard to their sounds, relatively to the strings which are struck by the action of the same keys, may be made in any way that will produce harmony. The symphonious vibrations of the tongues and strings enable an instrument of great power to be produced.

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

1. The combination of a series of metallic tongues or springs, *c*, *c*, with the piano-

forte or other stringed instrument, in such a manner that a tongue and a string are struck simultaneously by hammers actuated by a single key, substantially as herein described.

2. Actuating the hammer which strikes the tongue, by means of a jack, *d*, of any suitable form, attached to the damper, H, of its corresponding string, whereby the said hammer is caused to strike by the raising of the damper, when the piano-forte action is brought into play, and thus the tongue and string are struck simultaneously.

SPENCER B. DRIGGS.

Witnesses:

HENRY TICE, Jr.,
S. H. WALES,
HENRY P. MCGANN.