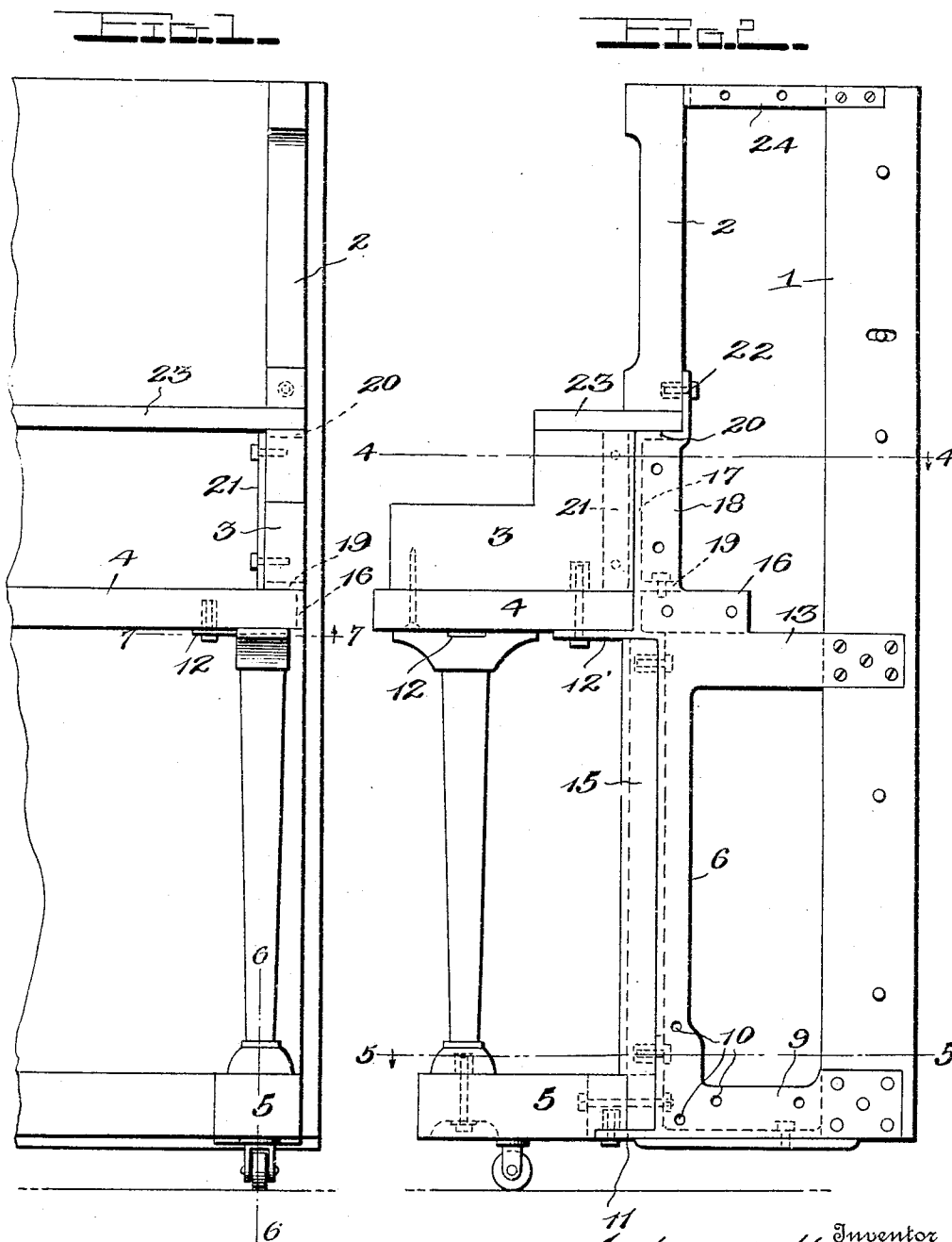


1,233,682.

Patented July 17, 1917.
3 SHEETS—SHEET 1.



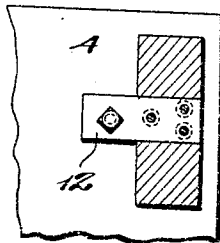
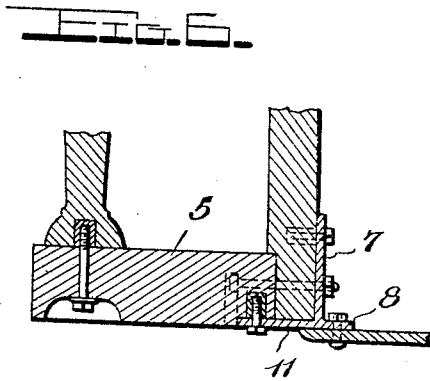
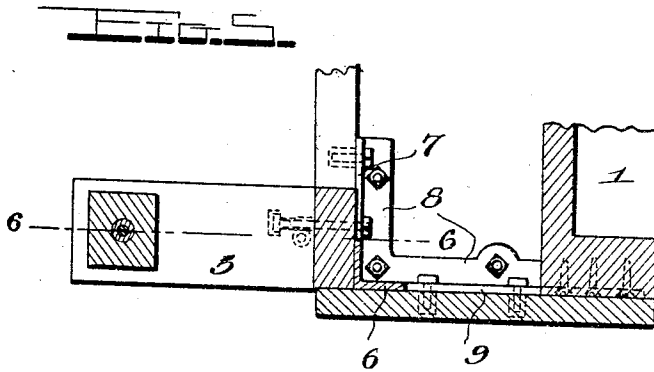
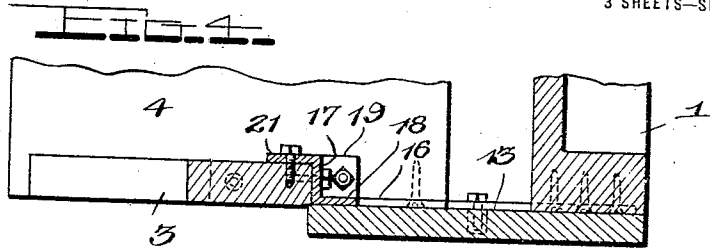
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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PIANO.

1,233,682.

Specification of Letters Patent.

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Application filed November 1, 1916. Serial No. 129,008.

To all whom it may concern:

Be it known that I, JOHN W. MEIKLEJOHN, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Pianos, of which the following is a specification.

This invention relates to certain new and useful improvements in pianos and more particularly to the piano case, the primary object being to provide a metal reinforcement to which the parts of the piano case are removably secured to enable any part to be removed for repair or refinish or otherwise without interfering with the operative condition of the instrument.

Further, the invention resides in the salient features hereinafter described and claimed, the improvements being depicted in the accompanying drawings wherein—

Figure 1 is a fragmentary front elevation of a piano embodying the present invention in one form.

Fig. 2 is a side or end elevation thereof.

Fig. 3 is a perspective view of the metallic reinforcing frame slightly modified, a portion of the musical instrument being shown in dotted lines.

Figs. 4 and 5 are horizontal cross sections taken through the structure at different levels, as indicated by lines 4—4 and 5—5, respectively, of Fig. 2.

Fig. 6 is a vertical section on line 6—6 of Figs. 1 and 5, and

Fig. 7 is a horizontal section on line 7—7 of Fig. 1, all of said sectional views illustrating more clearly the formation of the metal reinforcement.

Referring more in detail to the drawings, the numeral 1 designates the back frame of a piano, which carries the strings, 2 the pilaster, 3 the arm, 4 the bed and 5 the toe block, all of which parts are well known and may be of any design.

A metal reinforcing frame is arranged at each end of the piano and consists of a standard 6, angular in cross section and rising from a base 7 having an intumed right angular flange 8 and a rearwardly extending arm 9, which is secured by screws or bolts to the end beam of the back frame 1. Screw holes 10 are provided in the base and arm through which screws are passed for securing the reinforcing frame to the wooden structure of the piano. Extending for-

wardly from the base is a ledge 11 on which is secured the toe block 5 in an obvious manner.

Extending forwardly from the upper end of the standard 6 and vertically above the ledge or shelf 11 is a second ledge or shelf 12 for supporting the bed 4, while directed rearwardly from said standard is an arm 13 arranged in the same vertical plane with arm 9, and likewise secured to the back frame. Extending inwardly at right angles to ledge 12 is another arm 14 arranged in the same vertical plane with base 7 for supporting in common therewith the lower front panel 15.

The arm 13 is provided with an upward extension 16 on its inner end, and at one end of said extension and above the standard 6 rises a hollow post having two adjacent sides 17 and 18 and closed ends 19 and 20. The extension 16, with the bottom end 19 of the post, is secured to the bed 4, so that the latter is firmly and securely supported. The front side 17 has a forward flange 21 extending at right angles from the free vertical edge thereof and this flange together with said front side supports the arm 3. On the rear edge of the top end 20 of said post is a vertical wall 22 to which the pilaster 2 is secured. The music rest 23 seats on the top end 20 and also receives support from the flange 21, said rest, in turn, supporting the pilaster 2.

An arm 24 extends from the upper end of the pilaster to the back frame; this arm, in the modified showing, being integrally connected with the top end or step rest 20 by wall 25 corresponding to wall 22 and serving as a reinforcement to the pilaster.

The usual construction of piano cases embodies the use of dowel pins and glue in such a manner as to require the entire piano being taken to the repair shop for refinishing or repairing any one of the parts. It will therefore be noted that in a piano embodying the present invention, should any part, as, for instance, the arm 3, become mutilated it is only necessary to remove such part which leaves the remaining structure intact. The securing screws or bolts are positioned flush with the outer surface of the metal frame. The metallic frame will be practically unnoticed, but will materially strengthen the piano as well as permit any injured part of the piano case being readily and conveniently repaired.

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

1. A piano having a back frame, a metallic reinforcing frame arranged at a forward corner of the piano and having rearwardly extending vertically spaced arms connected to the back frame and vertically spaced forwardly extending shelves for supporting the toe block and key bed.

2. An upright piano comprising a vertical corner-reinforcing frame provided with means of support for the toe block, keybed, arm and music rest of said upright piano, and means removably securing the aforesaid parts to their means of support.

3. A metallic frame for reinforcing the case of a piano, comprising a standard having oppositely-extending means at each end for supporting removably the end, toe block and key bed of said bed.

4. A metallic frame for reinforcing the case and back frame of a piano, comprising a base having a forward toe-block-ledge, a rearwardly extending arm for connection with the back frame, and a standard rising from said base and having a key-bed-support on its upper portion.

5. A metallic frame for reinforcing the case and back frame of a piano, comprising a base having a forward toe-block-ledge, a rearwardly extending arm for connection with the back frame, a standard rising from the arm, a key-bed-supporting shelf on the upper end of the standard, and a second back frame arm on the upper end of said standard.

6. A metallic frame for reinforcing the case and a back frame of a piano, comprising a base having a forward toe block ledge, a rearwardly extending arm for connection with the back frame, a standard rising from the arm, a key-bed-supporting shelf extending forwardly from the upper part of the standard, a back frame arm extending rearwardly opposite the shelf, and means extending upwardly from the standard for connection with the arm of the piano.

7. A metallic frame for reinforcing the case and a back frame of a piano, comprising a base having a forward toe-block-ledge, a rearwardly extending arm for connection

with the back frame, a standard rising from the arm, a key-bed-supporting shelf extending forwardly from the upper part of the standard, a back-frame-arm extending rearwardly opposite the shelf, and a post rising from the standard and having its lower end arranged to seat on the upper face of the key bed, said post being disposed for connection with the arm of the piano.

8. A vertical corner frame for pianos, comprising a standard, a toe block support at its lower end, a keybed support above the toe block support, and a pair of vertically aligned and spaced back-frame securing arms, extending from the standard.

9. A metallic frame for reinforcing the case and arm of a piano comprising a bed-supporting shelf, an overhanging bed-engaging part having an upstanding wall for securement to an arm of the piano, and a forward flange extending from the wall alongside of said arm.

10. A metallic frame for reinforcing the case and back frame of a piano comprising a bed-supporting shelf, means for connection with the back frame, and an overhanging arm-supporting post spaced above the shelf, the upper end of the post constituting a music rest support.

11. A metallic frame for reinforcing the case and back frame of a piano comprising a bed supporting shelf, means for connection with the back frame, an overhanging arm-supporting post spaced above the shelf, the upper end of said post having a vertical wall for securement to the pilaster, and an arm connecting the pilaster to the back frame.

12. In combination with the component parts of a piano case, a unitary upright frame having a series of separated means extending out therefrom and removably secured to the respective parts of the piano case for rigidly holding said parts in place.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. MEIKLEJOHN.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER.