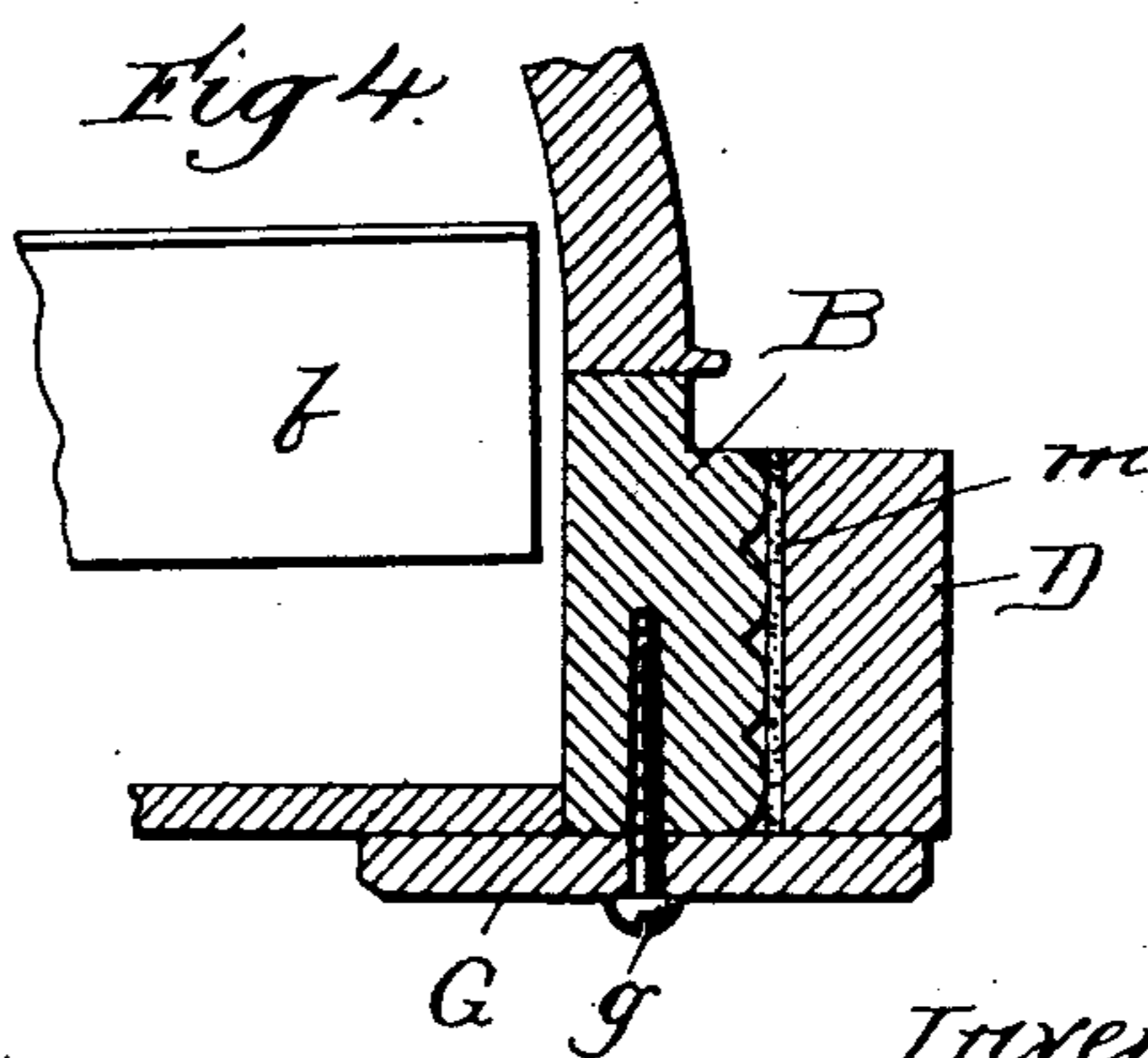
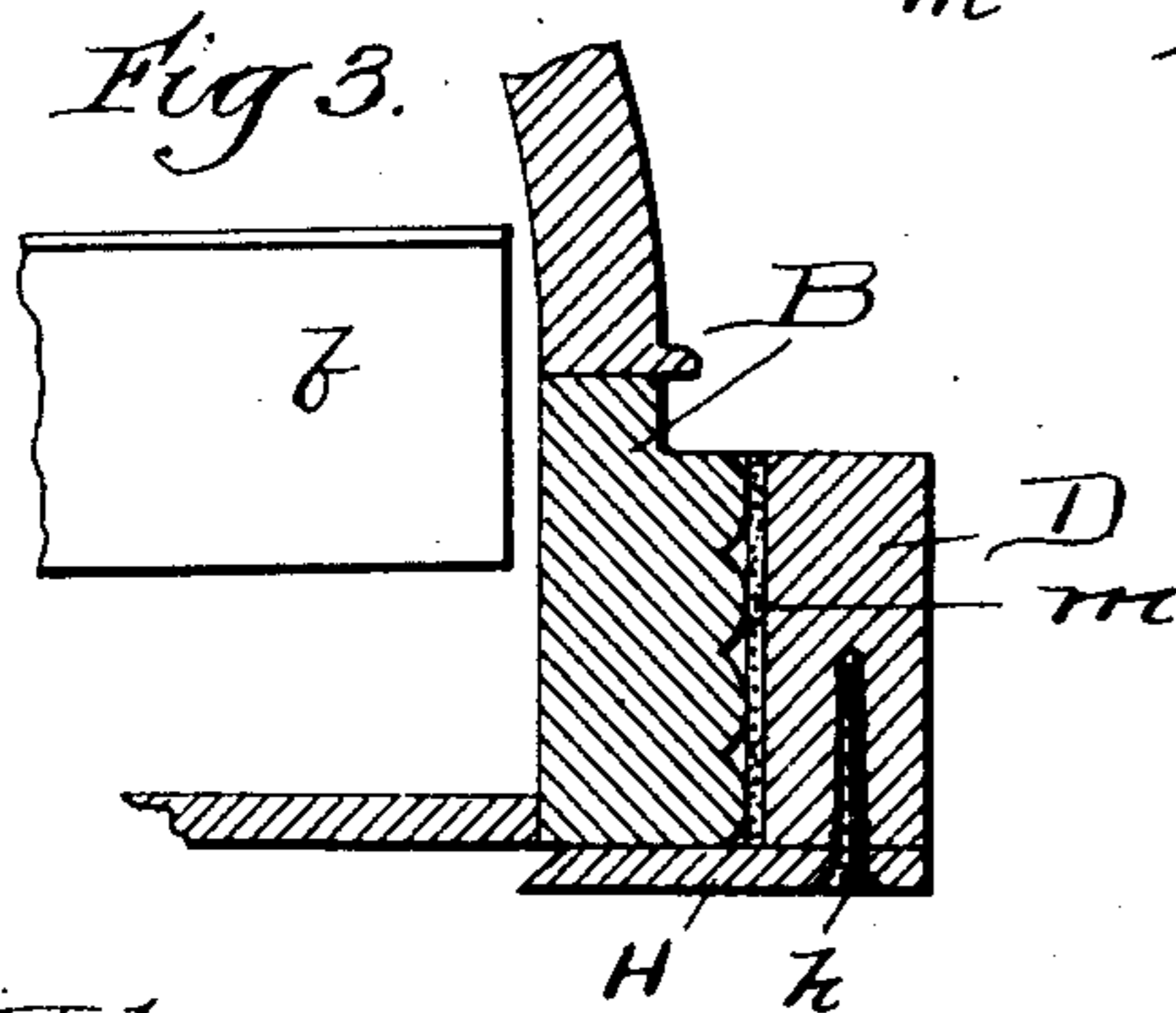
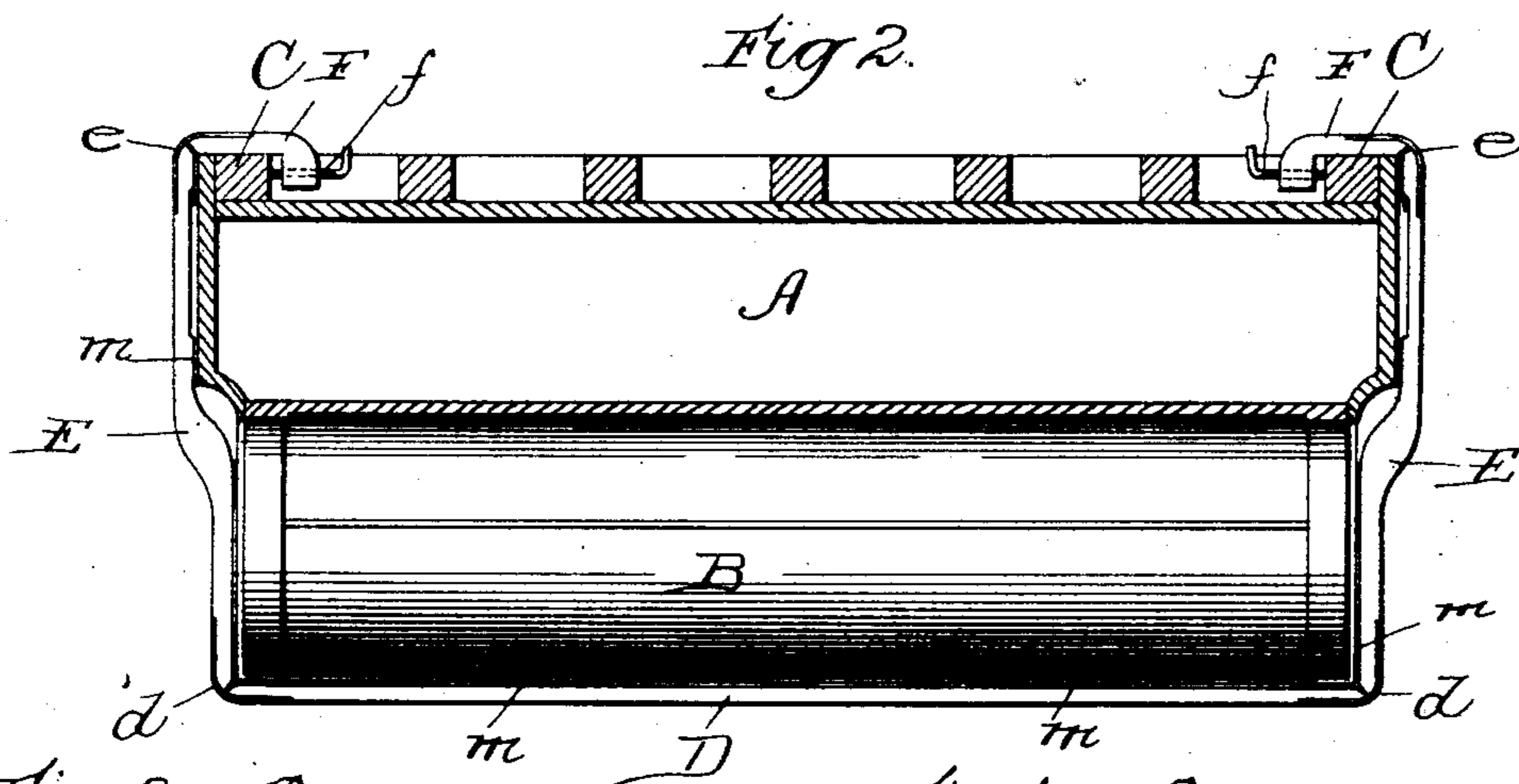
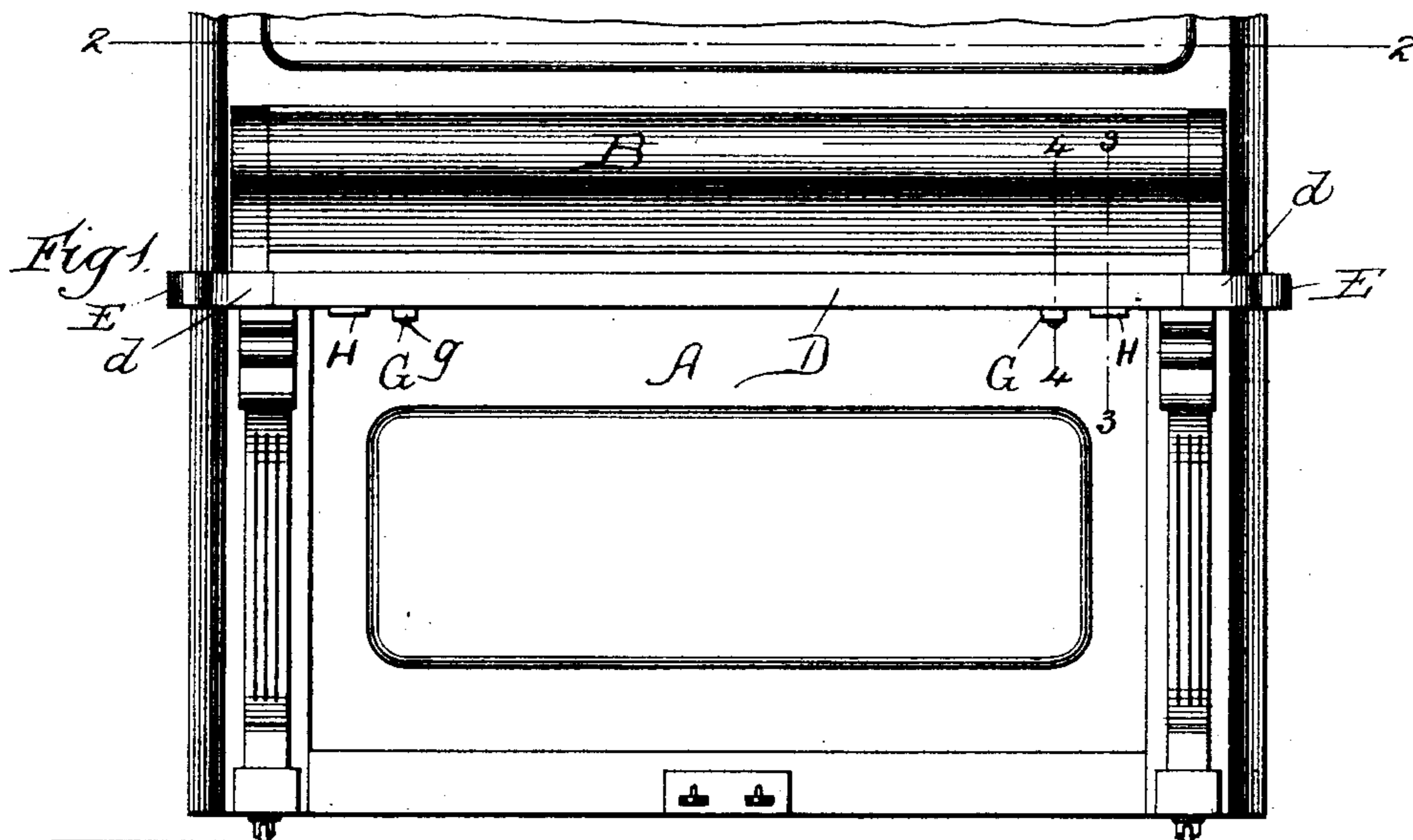


(No Model.)

D. L. RICE.  
GUARD FOR PIANOS.

No. 511,210.

Patented Dec. 19, 1893.



Witnesses  
Wm J. Fleming  
& M. Munday.

Inventor  
Duane L. Rice

by Munday, Everts & Adcock.  
His Attys

# UNITED STATES PATENT OFFICE.

DUANE L. RICE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE W. W. KIMBALL COMPANY, OF SAME PLACE.

## GUARD FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 511,210, dated December 19, 1893.

Application filed June 14, 1893. Serial No. 477,526. (No model.)

*To all whom it may concern:*

Be it known that I, DUANE L. RICE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improved Guard for Pianos, of which the following is a specification.

This invention relates to means for protecting or guarding the cases of pianos more especially while they are in the factory and in process of manufacture. The guard which I employ for this purpose consists of a flexibly jointed frame adapted to be placed or stretched around the instrument case in the plane of the projecting key board, and means for attaching its ends to the back posts of the piano.

The nature of my invention will be more fully understood from the description given below.

I show at Figure 1 of the accompanying drawings an elevation of a piano case with my improved guard in position thereon. Figs. 2, 3 and 4 are sections on the lines 2—2, 3—3 and 4—4 respectively of Fig. 1.

In the drawings A represents the main body of an upright piano case and B the key board portion of the instrument.

b represents one of the keys.

C C represent the back corner posts of the case. To this piano my protecting frame is applied. This frame is made up of wood protecting strips flexibly joined together, and consists preferably of the front piece D, end pieces E joined to the front piece by strap hinges d and back pieces F joined to the end pieces E by strap hinges e. The abutting ends of these pieces D E F are beveled as plainly indicated at Fig. 2 in order to permit the frame to be folded around the corners of the instrument case. The pieces F are provided with set screws f adapted to be forced against the side of the corner posts C. Said screws f are also adapted to tighten the frame so that it remains in place. The pieces F are preferably L shaped, and the screws f are preferably made to bear against one of the inner faces of the corner posts.

In order to support the front of the frame,

which is the part farthest away from the attaching screws f, I secure buttons G temporarily to the under side of the key board as plainly indicated at Figs. 1 and 4. These buttons are perhaps best attached to the key board by screws g, as they may then be turned into and out of the operating position. It is also desirable to provide the frame with means for preventing the front thereof from slipping upward; and these means may appropriately consist of the projecting lips H secured to the part D of the frame by screws h.

The parts of the frame which come in contact with the finished portions of the instrument case are lined with felt or other cushioning material, as shown at m.

When this frame has been secured to the piano, the danger of scratching and rubbing is greatly lessened. As the projecting guards are secured to the pianos at the same horizontal level, they act to prevent any contact between the pianos themselves, such as is very apt to occur where a large number of them are assembled in the factory or ware-house. They also protect the pianos against rubbing or contact with the walls or partitions of the rooms in which they are stored or worked upon. The key board is naturally most liable to injury by collisions between the pianos and by contact with other objects, but by my invention that part of the case as well as the body is thoroughly protected. My invention also saves much time and labor in covering up or removing scratches and injuries.

The frames are readily removed and readily applied, so that they may be taken off when any of the finishing operations are to be performed and replaced if the surface with which they come in contact is dry.

I have shown my guard frame as applied to a piano of ordinary construction. Of course it should be built to conform to the shape and size of the instrument upon which it is used, and the piano illustrated is intended only as a type.

I claim—

1. A frame adapted to be placed around the piano case in the plane of its key board and consisting of wood protecting strips flexibly

joined together, said frame being provided with means for securing it temporarily upon the case, substantially as specified.

2. A frame adapted to be placed around  
5 the piano case in the plane of its key board, and consisting of wood protecting strips flexibly joined together, said frame being provided with means for attaching it to the back

of the piano, and also with means for supporting it from the key board; substantially as is specified.

DUANE L. RICE.

Witnesses:

H. M. MUNDAY,

EMMA HACK.