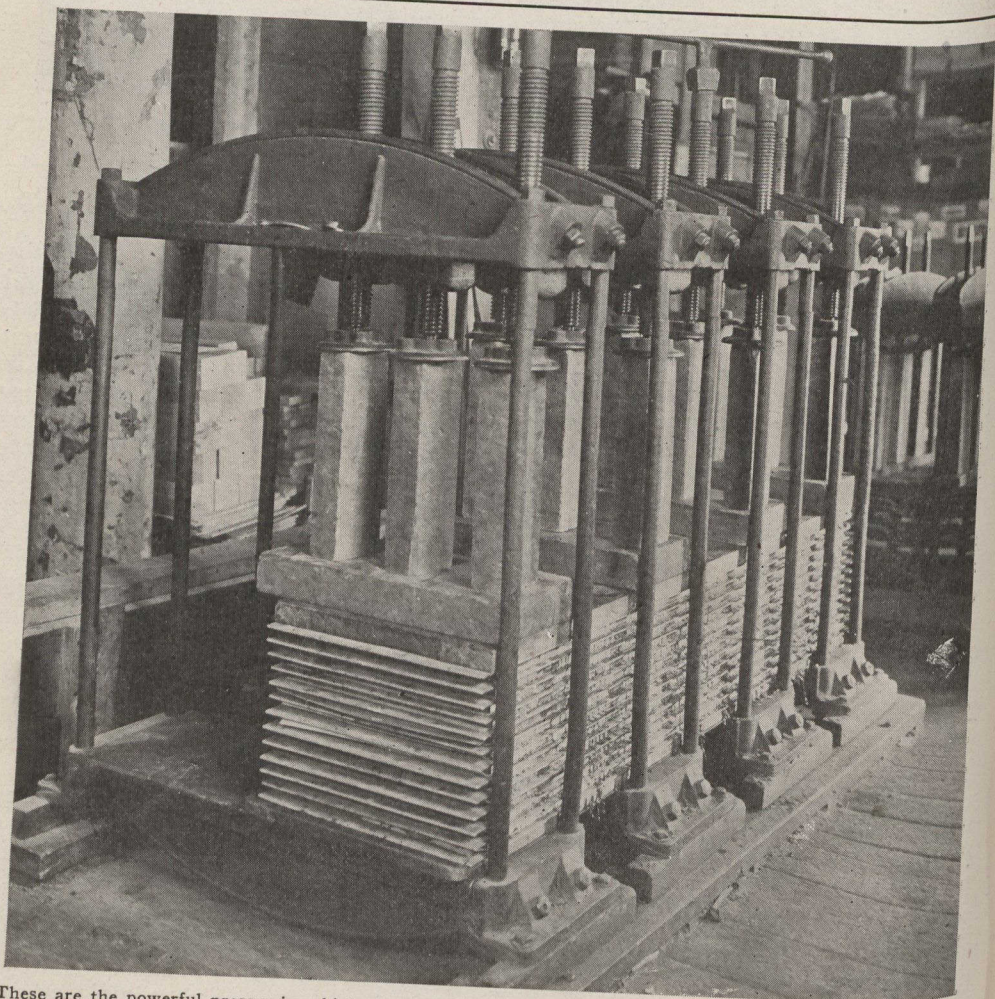


too little surface area to effect the auditory nerve. The sound board which is connected with the strings through the bridge increases their vibrating surface many thousandfold. In building up the sounding board only the most elastic lumber can be used which will produce vibrations with a minimum expenditure of power. The quartered wood is cut so that the "season rings" run at right angles to the grain, and the many strips which go to make up a sounding board are between 3 and 4 inches in width. Those strips which have a wide grain are placed opposite the bass strings and those with the closer grain are opposite the treble. The board is glued together

in the rough, is about one-half inch thick, and it is planed and sandpapered down to a finished thickness of from about a quarter in the base to three-eighths of an inch in the treble end. This is the work of a specialist and calls for a great degree of skill. A series of parallel pine battens or ribs are firmly glued to the back of the sounding board to strengthen it and also to give to the board the correct curve. A curved maple strip known as the bridge which is about 1 inch by 1 1-8 inches is fitted diagonally across the sounding board.

The Plate.

As mentioned before, the back or "rim" is the foundation of a piano. We



These are the powerful presses in which the pieces of veneered wood are placed, after the gluing process. The piano case itself is made of Ash, on which are glued four thin layers of mahogany or walnut veneer. The engraving shows a number of sections in the press.