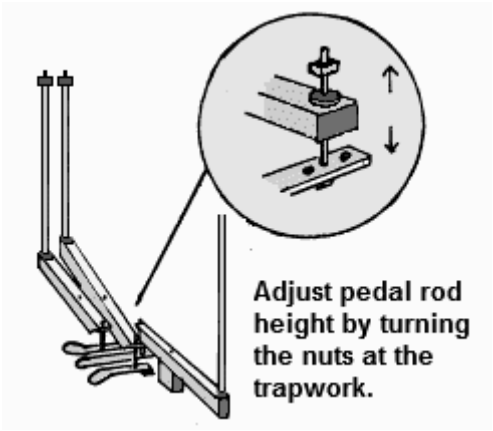
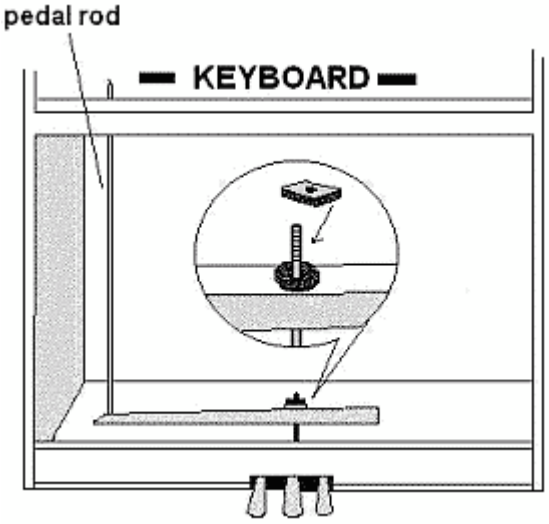
models the end of the rod has a pin which fits into a hole at the bottom of the hammer rail. Where a third, or middle pedal, is found on a vertical piano it may be a "dummy," merely duplicating the action of the soft pedal. In some cases it may be a bass damper pedal, lifting only the bass section dampers as a unit.




In some pianos, the middle pedal operates a felt **muffler** which is suspended on a metal bar in front of the tuning pins (*see instructions in appendix to remove this device if your piano has one*). When this pedal is used it causes the muffler felt to drop down behind the hammers, dramatically softening their impact on the strings.

The pedal mechanism on a vertical piano (called ***trapwork***) can be seen by removing the **kickboard** at the front bottom of the piano. It is usually held in position by one or two metal latches under the keybed. Depress the latches and pull the board *forward and out*. To replace it, align the holes in the bottom of the kickboard with the pins in the base of the cabinet.

## *Removing the vertical action*




**Vertical trapwork**
**Loosen the nut at the pedal trapwork to remove or adjust the pedal rods.**

The action in the upright can be removed *as a unit* by removing the three or four *nuts* at the top of the *metal action frame brackets*, disconnecting the pedal rods, and carefully lifting the action out by the metal frame.

Unless they are attached by screws, as on some older pianos, the pedal rods usually slip into holes in the *damper lift rod* and the hammer rail (on the soft pedal), and will often just fall away of their own accord as the action is lifted from the piano.

If not, you will need to remove them at the bottom of the piano. Loosen the nuts at the pedal trapwork to allow easy removal and replacement of the pedal rods.

**DON'T FORCE IT!** Great care must be used when removing or replacing the action to *avoid hitting the dampers against the action posts*.

A careful visual examination of the piano, combined with a bit of common sense, will help you to safely remove the upright action. If the action does not lift easily once you have followed these directions, ***stop***, examine the situation and determine the source of resistance. And have a place prepared where you can safely set the action so that it is not damaged by falling over. **CAUTION: *Do not* attempt to remove the action if the**