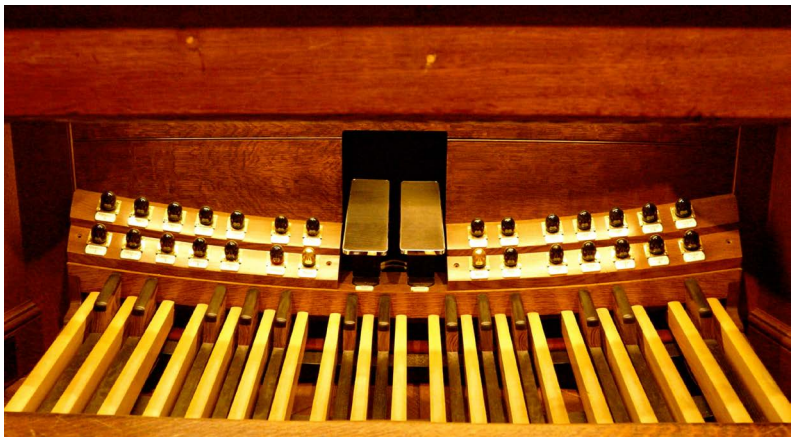
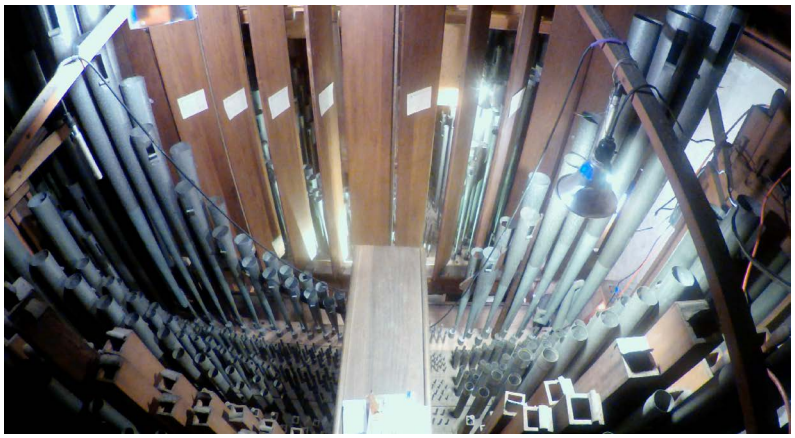
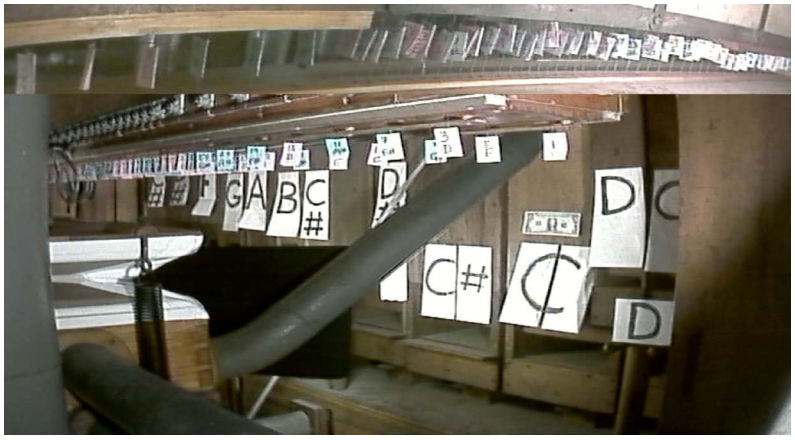
What's Inside?



The pedalboard is concave so that the outer keys are the same distance from the player as the center keys. Above it are two rows of toe pistons, to activate pre-set combinations of sounds when the hands are too busy to press a thumb piston. Centered are two large pedals; the right one controls the position of the swell shades, and the left is a preparation.



Above, **pipes of the Great division**, arranged symmetrically. A central walkboard supports the person tuning. Nine **swell shades** are behind, enclosing the pipes of the Swell division to adjust their volume and their timbre simultaneously.



Stop knobs move the sliders that stop (and start) wind from entering sets of pipes. Some knobs controls the couplers, connecting keyboards together and to the pedals. Knobs on the left of the keyboards are for the Swell division; on the right, for the Great. The bottom row on each side, with black-handled knobs, is for the Pedal. Between the keyboards are **thumb pistons** on which to preset combinations of stops for instant recall during the music. A *sequencer* makes it possible to set up an entire piece in numbered order and then either press "Next," or *any* piston, to advance to the next piston each time the sound should change. A display confirms the current memory level and piston.

At left, a combined view of two cameras showing the **action of the Swell division**, with a reservoir at lower left, and the wood pipes of the **Pedal Open Diapason** (low C is 16 feet long; see dollar bill for width). Low C and some other notes cannot play until restored. The top slice of screen shows labels on wires between the pallets (valves) in the chest above and action pneumatics below. Right above the note names of most pedal pipes is a row of pink and blue tags glued on to the primary valve stems, which move up slightly when a note is played, causing the pneumatic above to inflate and pull down on the wire above that.