

## **Hilborne Roosevelt Opus 113, 1883**

### **Great Barrington, Massachusetts**

Roosevelt Publication about the instrument  
Re-printed in The Tracker vol27no2

This magnificent instrument was built by Hilborne L. Roosevelt, of New York, and in designing the specification, which is of unusual magnitude as compared with the size of the church, special care has been exercised in order to produce the requisite volume of tone without overtaxing the acoustic properties of the building. One of the most important features in securing such good results in this respect, is the extensive recourse had to the placing of pipes within Swell-boxes.

The Swell Organ, which is of unusual amplitude, consists of 18 stops, and in its box are included the Quint, Octave Quint, Super Octave, Mixture, Scharff, Euphone and Trumpet of the Great Organ, thus enabling the organist to subdue at will these usually assertative stops and utilize their tones in a far more extended field than is commonly practicable.

The Choir Organ is independently enclosed by a box of its own, a device which greatly enhances its value and is productive of many charming effects of expression, in general only obtainable by use of the Swell Organ.

From the above it will be readily seen that, with such an unprecedented proportion of the whole instrument placed within Swell-boxes, viz.: 38 stops out of 55 (exclusive of the Echo), a crescendo or diminuendo of startling intensity becomes feasible to an extent impossible under other circumstances, besides which a beautiful and novel effect is produced by gradually closing one Swell while opening the other. The *Louvres* of both are controlled by two Balanced Swell Pedals, centrally located above the pedal keys in such relative position that they can be simultaneously operated by the same foot.

The amount of 8' flue work is also in excess of that usually met with, and is thus increased in order to form a foundation of extra solidity, and insure the production of that impressive and dignified body of tone which is the noblest feature of the "King of Instruments." It will be observed, too, that the amalgamation of tone-color in varied pitch has also been considered, the Diapason, Flute, String and Reed qualities being used in carefully regulated proportion, in stops of the various pitches.

The Swell Super Octave Coupler *acts on itself*, so that in order to bring it into operation it is not necessary to use the Great Organ keyboard and incur the inconvenience of previously rendering that department silent. The Drawstop Knobs are of the patent "oblique faced" form and are arranged in steps at either side of the manuals, those belonging to each department of the instrument being made of a distinctive kind of wood. The Couplers are to be found in a horizontal row immediately above the Swell keyboard.

All the Claviers are of the "overhanging" type, and the relative disposition and measurements of the keybox contents are all of the most universally approved standards, the woodwork of the same being highly polished ebony and mahogany.

The entire Drawstop Action is "tubular," and therefore free from the troubles that mechanical connections are subject to, besides which it simplifies the interior arrangements, and dispenses with a great bulk of rods, rollers, squares, &c.

The Pedal Ventil admits of instantly reducing the Pedal Organ to a *pianissimo* without throwing in the stops that may be *drawn on*, so that on releasing the Ventil the tone of this department returns to the previous quality, dependent upon the combination of stops drawn.

The Choir "Off," Echo "On" Ventil is a Pedal whereby the Choir Organ is detached from its keyboard at the same instant that the Echo is connected, or *vice versa*, without using the hand to manipulate the Echo Ventil Stop.

The Case, from the design of G. A. Audsley, F. R. I. B. A., of London is of cherry wood finished in a rich color, similar to that of antique mahogany, and the workmanship is as perfect as that of the finest drawing-room furniture. Though adhering to no strict style of architecture, it is in perfect harmony with the interior of the building, and its pleasing and noble effect is the result of artistic proportions and architectural construction, rather than unnecessary and undue elaboration with carvings, which is so often met with in, and rendered necessary by, less perfect designs. The decoration of the front pipes is exceedingly handsome and of a novel character, affording an effect far richer than ordinary gilding or coloring.

The Action throughout serves as a specially perfect sample of the highest class of workmanship. The greatest care has been exercised, and every known precaution resorted to, to eliminate friction, noise, lost motion, and all the evils that this sort of mechanism is liable to. Every point of contact is "bushed," every piece of small hardware, whether of brass or iron (excepting the screws) is silvered, nicked or tinned and adjustability is accomplished at every joint.

The Windchests are those known as "Roosevelt Chests," and may be briefly described as being "tubular pneumatic" in principle, and affording a separate pallet for every pipe. The construction and operation are such as to preclude the possibility of almost all of the derangements common to most organs, arising from thermometric or barometric variations. No matter how large the organ, these chests render the touch light and agreeable without the intervention of the complicated pneumatic lever, and above all insure a degree of perfection in "repetition" never before attained in an organ and equal to that of the most perfect pianoforte. They dispense with the objectionable "sliders" heretofore commonly used,

and are so arranged that each and every part is easy of access for removal or replacement in case of accident.

The Echo Organ, so seldom met with and productive of such exquisite effects, is a device dependent for its existence in so perfect a state upon the possibilities of the "Roosevelt Electric Action." It here consists of an organ of five speaking stops, situated as high as possible in an extension of the main building which is separated from the body of the church by the solid wall back of the pulpit. Its wind is brought from the feeders of the main organ, through a large galvanized iron pipe to a "regulator" in its immediate vicinity, and from thence it passes to the windchests and pipes. The action of both keys and drawstops is electric, the wires being controlled by the Choir manual and the speech is marked by perfect promptitude. The total length of wire used is two and one-half miles, and but a few cells of "Leclanche" battery supply all the necessary electricity. In addition to the subdued and sweet tone imparted to all the pipes by their remote position, the Vox Humana is rendered more imitative and realistic than it can ever be when otherwise located. To connect the Echo it is only necessary to draw the "Echo Ventil" stop, situated above the Swell keyboard.

The Blowing Apparatus is specially noteworthy and is located in a large room in the cellar beneath the vestibule. There are three "Jaques Improved Hydraulic Engines," viz.: two large ones, of 6" diameter, for supplying wind to the pipes, and one of a smaller size to generate a high pressure for the combination pneumatics. Each of the 6- inch engines is firmly framed to a pair of extremely large direct horizontal acting square feeders, from which the wind is led, through capacious wind trunks, to the bellows in the organ. The third engine controls the feeders of an ordinary small bellows to which it is framed and which is heavily weighted, the wind passing in a similar manner direct to the pneumatics. All the air that enters the feeder room is drawn from the organ through large air-shafts, thus preventing the detrimental effects that would be caused by forcing cellar air through the instrument. The water valves are automatically controlled by the rise and fall of the bellows, so that the speed of the engines is regulated by the demands made for wind, and no water is wasted. From the bellows the compressed air is conveyed to a smaller receiver, called a "regulator," which insures absolute steadiness, and from thence it is distributed to the different departments of the organ. To avoid friction, and consequent loss of pressure when the utmost demands are being made on the wind supply, all the wind trunks have been made of extraordinary sectional area, and right angled bends in the same studiously avoided. Each trunk is fitted with a "concussion bellows" or "lung" to prevent unsteadiness arising from the recoil caused by the simultaneous closing of many pallets, and a flexible joint to avoid the weight of windchests and pipes being transferred from the frame to it, by possible shrinkage or the settling of the floor.

The Combination Action is perhaps the most unique point displayed, and is of recent invention. It is known as the "Roosevelt Adjustable Combination Action," and is exceedingly simple, easy to adjust and manipulate, and unlikely to get out of order. By this novel contrivance the player is enabled to place any combination of stops he may require under immediate control, altering such combinations as frequently as may be desired, instead of being compelled to use invariably the arbitrary and unalterable election placed at his disposal by the usual form of Combination Pedals. The mechanism is controlled by Pistons to be operated by the thumb, and Pedals by the feet. A series of pistons for each department of the organ is placed under the corresponding manual, there being five under the Swell, five under the Great, and three under the Choir.

The Pedal stops are connected with the Great Organ Pistons, in addition to which there are three Pedals whose action governs them exclusively. The couplers also are controlled by this mechanism, those belonging to each manual being acted upon by its Pistons. Eight horizontal rows of small vertical levers will be found displayed on each side of the keybox above the drawstops. One of these rows belongs to each Piston or Pedal. The levers in each row represent the registers to be controlled by that Piston or Pedal, and are labeled accordingly, and the pressure of the lower end of any one of them will cause its corresponding stop to be drawn on when the Piston is used which governs the row in which the lever in question is situated. For instance, to render Great Organ Piston No. 1 available for producing required changes of tone, it is only requisite to push in the lower ends of the levers in the highest row to the right bearing the names of the desired stops, in order to cause them to be drawn on when the piston is pressed, those levers remaining in a reversed position causing their corresponding stops to be drawn off at the same time. Since these combinations can be altered as often as desired, and so conveniently, and can take any form whatever, the organist can at pleasure, and before he begins to play, set the levers so that each Piston or Pedal will draw on or off such stops as he may select for the execution of the piece he is about to perform. The use of this mechanism renders the partial drawing of the stops an impossibility, and as the registers are visibly operated, the tonal condition of the organ can always be ascertained by a casual glance.

The Voicing, on which mainly depends the success of the instrument, is deserving of the close study and examination of those interested in the subject and combines all the best points of European schools with some effects seldom, if ever, before produced. The great delicacy and characteristic quality of tone in the different stops, the immense power of full organ without harshness, and the perfect blending of the whole into an agreeable and massive tone, yet not lacking in brilliancy, are all noteworthy features and the result of a most careful school of voicing.

The excellence, durability, and finish of the work in every detail, however insignificant, have been carried to the highest attainable standard, and the instrument as a whole, is a representative one of the perfection to which the Art of Organ Building has been advanced.