Number 34-7-17

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### CONTRACT SPECIFICATIONS AND STRUCTURAL DETAILS

# KIMBALL ORGAN

of a

### for

First Church of Christ,

Scientist

Haddonfield, New Jersey

Manuals, Two	compass CC to C4	61 notes
Pedals, compas	s CCC to G	32 notes
Console type,	Ştop key	
Stop control,	Mechanical combinatio	ons
Combinations,	adjustable at the console,	

### W. W. KIMBALL COMPANY

Esteblished 1857 Kimball Hall - Chicago

Number 34-7-17

Porm 15B

Pitch	Name of Stop	Pipes	Materials and Remarks
		GREAT	
81	Open Diapason	73	61 diapason metal, 12 zino
81	Melodia	73	61 open wood, 12 stopped
81	Dulciana	73	61 spotted metal, 12 zinc
4'	Octave	73	73 spotted metal
	Chimes	and in the second second	Prepared for
		<u>SWELL</u>	
81	Rohrflöte	73	61 spotted metal with chimneys,
81	Salicional	73	62 spotted metal, 11 zinc
81	Voix Celeste	73	62 spotted metal, 11 zino
4,	Harmonic Flute	73	spotted metal
2 <sup>2</sup> /3 <sup>1</sup>	Nazard		Extension of Rohrflöte
21	Piocolo	12	Extension of Rohrflöte
81	Tuba V	73	reeds, spotted metal and zinc bells
		PEDAL	
16'	Bourdon	32	stopped wood, large scale
16'	Lieblich Gedeckt	12	stopped wood, extension of Swell Flut
81	Bass Flute	12	Extension of Bourdon
81	Stillgedeckt		from Swell Flute

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#### <u>CCUPLERS</u> Swell to Great 16' Swell to Great 8' Swell to Great 4' Great to Great 16' Great to Great 8' off Great to Great 4' Swell to Swell 16' Swell to Swell 8' Swell to Swell 8' Great to Pedal 8' Swell to Pedal 8' Swell to Pedal 8' Swell to Pedal 4'

#### COMBINATIONS

Four adjustable pistons affecting Great and Pedal stops and couplers Four adjustable pistons affecting Swell and Pedal stops and couplers

#### ACCESSORIES

Balanced Expression pedal affecting entire organ Balanced Crescendo pedal affecting all stops with selected couplers Sforzando, reversible pedal, affecting stops and couplers of entire organ Crescendo Indicator Sforzando Indicator Action Current Indicator Crgan bench Trenolo affecting all pipes except Fedal Basses

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#### Kimball Organs are designed by us and built in our own factory in accordance with the following general

#### STRUCTURAL DETAILS:

#### CONSOLE

#### CASE

Console case and bench to be native hard wood, finished as ordered. The visible interior of console to be mahogany or other hard wood, finished as ordered.

All inside woodwork to be finished with three coats of lacquer.

KEYS

Manual keys to be sugar pine, naturals surfaced with genuine ivory, sharps to be ebony. Pedal keys to be hard maple with removable faces, the sharps to be black (impregnated). Manual keyboards inclined, and hinged; pedal keyboard concave and radiating, hinged and removable.

Manual and pedal key springs to be located at front of key. Key motion to be regulated from front of key.

Manual and pedal keys to be bushed with first quality bushing cloth.

MEASURE-MENTS Manual key tips 4" apart horizontally and 2½" vertically. Face of center pedal natural 29½" below tip of lowest manual natural. Nose of center pedal sharp on four and five manual organs 11" forward of a plumb line dropped from tip of lowest manual natural key; three manual organs 9¾" forward; two manual organs 8" forward.

CONTROLS The stop controls to be draw knobs with solid ivory heads on ebony shanks, solid ivory tablets, or standard molded stop keys. Draw knobs to move in a straight line in velvet bushings. Stop keys with their regulating machine-screws and springs to be mounted in individual die-cast metal frames. Movement of all stop controls each way past center to be assisted by toggle springs, and motion cushioned by heavy felt.

Each group of combination pistons, with contacts and springs, to be located in a removable frame screwed to the front of manual pin rail. Toe pistons, with springs and contacts, to be self-contained removable units with metal studs. Balanced pedal assembly to be a selfcontained removable unit. Pedals to be mounted on hardened steel shaft in machined bronze bearings, lubricated from ball oil-cups sunk in pedal face. Pedals to have individually adjustable tension.

Locking and reversible pedals, with springs and contacts, to be self-contained removable units of cast brass.

All metal fittings in console to be heavily plated with non-corrosive metal.

All lettering on stop controls to be engraved.

Indicators to be provided for all blind movements.

VERMIN Openings cut for balanced pedals and pedal keyboard to be solidly enclosed. PROOFING All felt to be poisoned against insects. 110B P.O.-1000-8-32

## W. W. KIMBALL COMPANY

#### Number

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#### ORGAN

FRAME WORK	Floor sills and l lacquer.	building frame to be sound, clear Douglas fir, finished with two coats of					
WIND CHESTS	All wind chests to be made of No. 1 white pine, finished inside and out with two coats of lacquer. All channeling and boring to be sealed airtight inside by soaking in hot varnish. The windchests of manuals affected by octave couplers to be extended one octave above the compass of the keyboards, to 73 notes.						
REGULATORS	All regulators to be made of No. 1 white pine, finished with two coats of lacquer, leath- ered inside and outside at hinges and gussets with alum-tanned sheepskin. Regulators to be equipped with three control valves of graduated sizes, operated in succession by the regulator top.						
	Wind pressures to be obtained by coiled springs and felted, screwed-on weights.						
	Silencing regulators to be installed in the blower room, for blowers of 3 H. P. or more, one for each blower outlet.						
WIND	Small wind trun	ks to be made of metal with heavy metal collars, lacquered finish.					
inonanio	Large wind true flexible joints.	the to be made of No. 1 white pine with hard wood collars and reinforced Collars to be packed with felt and leather and screwed in place.					
EXPRESSION SHUTTERS	Expression shut with double felt	ters to be laminated chestnut not less than 2" thick, graduated in width, ed edges. They are to be fitted with adjustable oiled bearings.					
TREMOLOS	Tremolos to be of the pneumatic valve type, made of No. 1 white pine, finished with two coats of lacquer, fitted with mufflers and means of regulating speed and strength of beat independently.						
FINISH	All wood work, also metal wind trunking, to be finished with two coats of lacquer; except expression shutters, which are given a dark color finish that does not reflect light.						
		ACTION DETAILS					
CONTACTS	Key, relay and stop action contacts to be made of silver .925 fine. One element to be spring silver wire and the other a plate faced with a silver bar, both elements to have cylindrical surfaces meeting at right angles with a gentle rubbing motion.						
	Braided feed wires are to be soldered onto contact plates, which are to be mounted directly on the parts moving them.						
WIRING	All wiring, except internal wiring in switchboard and relay, to be machine spun moisture- and flame-proof cables, made (with color code) to the following specifications:						
	Primary Cables	No. 24 B & S gauge tinned copper wire, double cotton covered, wax- impregnated, four opposed wrappings of waxed paper, tight machine- braided cotton cover, coated with flame-proof slate finish.					
	Main Cables	No. 24 B & S gauge tinned, enameled copper wire, single cotton covered, wax-impregnated, six opposed wrappings of waxed paper, tight machine- braided cotton cover, coated with flame-proof slate finish.					
	All wires to be soldered at both ends.						
SWITCHES	Switches to be made of hard maple, with switch combs mounted on moving leaf of operat- ing pneumatic, which is to be attached directly to primary action box, and is easily remov- able. Switch plates heavily plated with silver, set in low cut grooves in switchboards.						

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MAGNETS	Magnets to be of the hair-pin pole type, made to the following electrical and mechanical specifications:						
	Cores	Norway iron, annealed after bending.					
	Coils	Wound with No. 40 enameled copper wire, with soldered-on stranded terminal wires tied to core. Total resistance 400 ohms, current consumption 1/2 ampere at 15 volts. Coils to be slipped onto core after bending. Coils to have protective covering.					
	Base	Base to be a seamless aluminum die-casting. Air ports to be screened. Core and coil assembly to be pressed into base.					
	Valve Seat	Die-cast Bakelite. Valve seat to be raised to form a dirt trap.					
	Armature	To be 7/16" in diameter, .020" thick, weighing 1/73 ounce. To be punched from Armco iron sheets. flattened, tumbled and copper plated. To be left bare of any packing material, and to seat against non-corrosive, non-metallic materials.					
		To have a fixed motion of .020".					
SWITCHES	Switches to be made of hard maple, with switch combs mounted on moving leaf of operat- ing pneumatic, which is to be attached directly to primary action box, and is easily remov- able. Switch plates faced with sterling silver, set in low cut grooves in switchboards.						
PRIMARIES	Manual primaries to be built into bottom boards of chests. Pedal primaries to be built onto face boards of chests. Magnets to be set vertically with armatures held normally in the off position by gravity. All primaries to be held in position with expansion springs and to be silenced with muffler boxes. Primary pneumatics to be covered with best selected English pneumatic leather.						
VALVES	Valves to be discs of felt and leather backed by discs of compressed fibre, all felt to be poisoned against insects.						
CHEST ACTION	Manual wind chests to be of the individual valve type with individual top boards for each set of pipes. Each group of valves, with their diaphragms, is to be mounted on a removable unit attached directly to the top board of the chest.						
	Each pipe is to be set directly over its valve, with a straight, vertical wind channel.						
	Pipe valves to be glued directly onto best selected English pneumatic leather diaphragms.						
	Valve springs to be phosphor bronze, conical and self-centering.						
	The large pipes of the 16' and 8' stops are to be set off on separate chests, each pipe hav- ing its individual magnet, primary and valve, no set-off pipe to be tubed to the main chest.						
	Each pedal pipe to have its individual magnet, primary and valve.						
STOP ACTION	The stop action (except in the case of pipes with individual electric primaries controlled through switches) is to be operated by pitman valves, one for each pipe, placed in the action channels of each set of pipes. It is to be as positive, quick and quiet as the key action.						
	Pitman valves to be suede leather. Pitman tails to be graphited and tumbled. Pitman seats and guides to be graphited and burnished. Pitman action boxes to be attached directly to the diaphragm valve boards, and the whole assembly to be attached to the top board of the chest by screws with expansion springs.						
SWELL ACTION	The swell action (expression) to be of the individual shutter type, with shutters opening in succession, each shutter equipped with an individual pneumatic motor and adjustable bumper. The motion of shutters to be adjustable. The shutter primaries and motors to be located inside the organ chambers and to be fitted with mufflers.						
COMBINA- TIONS	The combination action to move the stop controls and to be adjustable instantly at the console through the stop controls.						

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#### PIPES

#### All pipes to be made and voiced in the Kimball Factory.

METAL PIPES

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he	following	metals	to be	e used:	(The	tin	content	given	is the	minimum	in each	class
om	e diapason	metals,	for e	xample,	run to	331	13% tin	. No a	antimo	ny to be u	ised.)	
	Cast s	pecial s	tring	metal (	known	28	"nure t	in")	90% t	in, balanc	e lead	

Rolled, annealed heavy zinc.

The pipes of certain principal diapasons (scale 38 and larger) to be made of special heavy diapason metal down to FF#, the low six pipes of open wood or extra heavy zinc; others of heavy diapason metal down to AA#, the low ten of heavy zinc; normal scale diapasons of heavy diapason metal down to tenor C, the low twelve pipes of heavy zinc. Salicionals, their celestes and similar stops to be of spotted metal down to BB, the low eleven pipes of zinc.

Dulcianas, violas, gemshorns, spitzflötes, geigens, violin diapasons and similar stops to be of spotted metal down to tenor C, the low twelve pipes to be of zinc.

Slender scale orchestral strings and delicate violes to be made of pure tin down to AA, the low nine pipes to be made of zinc.

Zinc pipes to have cast metal mouths and toes, 331/3% tin.

All metal flue pipes to be provided with sliding tuners.

WOOD PIPES

All wood pipes to be made of No. 1 white pine, those from 2' speaking length upward to have hard maple fronts and backs. All to be glue sized inside, sanded smooth and finished with three coats of lacquer outside. Large wood pipes to be tongued and grooved, with reinforcing screws at top and bottom.

The feet of all wood pipes standing on the manual windchests to have metal toes con-taining  $33\frac{1}{3}\%$  tin. Gates to be provided in the feet of all larger wood pipes. All wood pipes to be provided with tuners. All stoppers to be cork fitted.

**REED PIPES** 

#### All 8' chorus reed stops on pressures higher than 10" to have 61 reed pipes.

All 8' chorus reed stops on 10" pressure or lower to have 56 reed pipes. All 8' orchestral reed stops to have 53 reed pipes, French Horn 49 reed pipes. Reed blocks to be cast extra heavy, with shoulder extension to support eschalot against tuning spring.

Reed tongues to be spring brass. Reed wedges to be machined brass. Reed eschalots to be bored from solid brass rod, except certain larger sizes to be formed from heavy brass sheets. No leathered eschalots to be used.

VOICING

Pipe scales, wind pressures, and tone character are carefully determined at the factory, but since peculiarities of building design and acoustical treatment of the building often alter the tonal results of even the most carefully regulated pipes, any set or sets of pipes thus affected will be revoiced or replaced without cost.

The voicing shall be entirely satisfactory to the purchaser.

#### POWER PLANT

To consist of a direct coupled electric motor and blower tested to furnish continuously BLOWER an ample and steady supply of wind at the required pressures.

The generator for action current to be wound to our order to the speed of the blower GENERATOR motor and to be direct coupled thereto without belting, chains or gears.

#### FINALLY

The workmanship and finish of the organ to be of the highest standard, in every way WORKMANequal to, and consistent with, the materials used. SHIP

- The entire instrument to be completely erected, tested and tuned, in our factory before ERECTION, TESTING shipment.
- The organ to be installed, regulated and tuned in the building by Kimball employees, and INSTALLA-TION not to be offered for acceptance until it is finished to the complete satisfaction of the purchaser.

FREE SERVICE

The organ to be kept in tune and regulation for one year from its completion date. This service to be available as ordered, without cost to purchaser.

110 E. P.O.

### W. W. KIMBALL CO.

Establisbed 1857 Kimball Hall, Chicago

Organ Architects and Builders

Chicago, Ill. August 1/1. 1934

## Annual Organ Service Contract

Haddonfield, New Jersey

this service to be performed by competent Kimball technicians and helpers who will visit the above mentioned organ \_\_\_\_\_ times during the twelve month period next following the date hereof, such calls to be made during the months of \_\_\_\_\_\_ Menever\_\_\_\_\_\_\_

and which service shall comprise the following: Regulating action, tuning pipes, inspecting and making simple adjustment of organ blowing equipment.

We will gladly furnish estimates for necessary service other than herein specified.

W. W. KIMBALL COMPANY

Accepted \_\_\_\_\_193\_\_\_\_

Approved\_

By...

W. W. KIMBALL COMPANY

aretary

For\_

#### 116T.-P.O.-1000

### W. W. KIMBALL COMDANY

### Contract

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unless delayed by fire, strike,

of <u>Huddonfield</u>, <u>New</u> <u>Jeroan</u> agrees to purchase and pay for as hereinafter set forth, one Kimball pipe organ, in accordance with the specifications and structural details attached hereto, and which are hereby made a part of this contract. W. W. Kimball Company agrees to ship the said organ on or about. December 10 1934, and to install the same in Finst at Haddoup hunch of Christ Scie ald n ecender 25 1934

...on or about..... freight embargo, act of Providence or other cause beyond its control.

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The shipping and completion dates are contingent upon the Purchaser furnishing to W. W. Kimball Company within ten days of its request therefor, essential plans and information for the construction of the organ; and further, upon the Purchaser duly providing, in accordance with directions and information supplied by W. W. Kimball Company: the chambers or other space for the organ, console and blowing plant, finished, clean and thoroughly dried out before the organ parts are delivered; the electrical connections to the blowing plant and conduits for same and for the organ cables and mains; the air tight galvanized iron wind pipes from blowing plant to all sections of the organ and the console; electric lights in the organ cham-bers and blower room and at console; and allowing the uninterrupted use of the premises, with necessary light, heat and power for the proper installation, tuning and finishing of the organ.

In consideration of the foregoing the Purchaser agrees to pay for the said organ the sum of Three thorsand, two hundred and fifty dollars (\$3,250.) payable in Chicago or New York exchange, with interest at six per cent (6%) per annum on any amount of the purchase price not paid when due, as follows: Three hundred and threaty-fine dollars (\$3,25.0) dollars (\$325.00) me Upon signing this contract; ........................dollars (\$...... .....) On Thes dollars (\$32500 4 Twenty-6 a a ng

1. dollars (\$32,500) Upon completed installation; and Two thousand two hundred and seventy-five dollars (\$2,275 ad)

together with interest at the rate of six per cent (6%) per annum on the unpaid balance (rom date of instalion, in seight successive quarterly payments of Two winded ighty form and 31 dollars (\$284.31....) each and interest as above, the first 

event of delay in shipment or installation caused by Purchaser for any reason, Purchaser agrees to pay all costs of storage; to make all payments herein provided to be made prior to installation; and that for the purpose of fixing the times for the payments to be made of the Balance, the installation of the organ shall be deemed to have been consummated sixty days after the stated approximate shipping date.

The Purchaser agrees to assume all risks of damage to the organ by fire, water, lightning, tornado or earthquake, or any other cause not due to negligence or fault of W. W. Kimball Company or its employees, after its arrival on the Purchaser's premises, and to insure the same in reliable companies for the benefit of the parties hereto as their respective interests may appear at the time of any loss; and further, that the title to the organ shall remain in W. W. Kimball Company until it is fully paid for as hereinbefore pro-vided. The Purchaser also agrees to execute and deliver to W. W. Kimball Company any further docu-ments that may be required by it during the life of this contract to give full legal protection to its title and equity in the State in which the organ is or is to be installed; that until all payments due and to become due equity in the State in which the organ is or is to be installed; that until all payments due and to become due hereunder are paid in cash Purchaser has no right to encumber, transfer or dispose of the organ or any part thereof without the written consent of W. W. Kimball Company; and that until it is so paid for the organ shall in no event become a part of the building in which it is installed nor shall it be removed therefrom without the written consent of W. W. Kimball Company; nor shall any alterations or additions be made to the organ except such as may be made by W. W. Kimball Company pursuant to agreement between the par-ties hereto in writing; nor shall any other than an employee of W. W. Kimball Company be admitted to the interior of the organ or its console without the consent of the Company; and it is further agreed that upon default of the Purchaser in making any payment, as herein provided for, or the failure of the Purchaser upon default of the Purchaser in making any payment, as herein provided for, or the failure of the Purchaser to perform any of the provisions or terms of this agreement, W. W. Kimball Company may at its option declare the entire unpaid amount of the purchase price due and payable and commence proceedings to enforce payment thereof, or the Company may at its option, and without notice, repossess the organ, and for that pur-

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pose shall have the right to enter the premises of the Purchaser and remove the organ with or without force or process of law, and in the event of such repossession all monies paid on the purchase price thereof shall belong to W. W. Kimball Company for the use and depreciation of said organ and as liquidated damages for the breach of this contract by the Purchaser; provided, however, that in the event there are statutory provisions governing the right to repossess, such provisions shall control.

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The foregoing contract covers all agreements and conditions between the parties hereto and becomes valid and binding upon both when accepted by the Purchaser and approved by an executive officer of W. W. Kimball Company.

Accepted august 9th First church of christ W. W. MIMBALL COMPANY, B. Muth Approved Ange yort - Puil 3 D. Yost - Clerk chan Win W. W. KIMBALL COMPANY. By It. It. I findd

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KIMBALL HALL CHICAGO

The home and executive offices of the entire Kimball Company. Here in a spacious auditorium, organists from all over the world come while in the city to play and to discuss organs and organ problems.

### This Organ Specification

has back of it an institution of unquestioned integrity and financial responsibility—

A Factory of vast proportions and great resources—

An experienced organization maintained down thru the years by succeeding generations of the Kimball Family—

A reputation for successful achievement extending over a period of seventy-five years—

These salient facts and the qualities of the instrument itself assure every purchaser of a Kimball Organ a degree of satisfaction not obtainable from any other builder.



This illustration will give a slight impression of the vastness of the Kimball Factory. Located in the heart of Chicago's great manufacturing district, it covers 17 acres and provides more than 850,000 square feet of working space.