

THE GREAT ORGAN
OF
THE FIRST BAPTIST CHURCH
Bakersfield, California

EIGHTY-FIVE HUNDRED VOICES OF PRAISE

THE GREAT ORGAN
OF
THE FIRST BAPTIST CHURCH
Bakersfield, California
1932 / 1988

Aeolian-Skinner / Robert M. Turner
Organ Companies

Those who would like a copy of this booklet can receive the same by sending their name and address and a \$3.00 donation to:

The Ministry of Music
First Baptist Church
5500 Olive Drive
Bakersfield, California 93308

THE GREAT ORGAN OF THE FIRST BAPTIST CHURCH BAKERSFIELD, CALIFORNIA

Installed: 1932, the Memorial Church, Harvard University

Builder: Aeolian-Skinner Organ Co., G. Donald Harrison (design and tonal finishing)

Action: Electro-pneumatic

Ranks: One Hundred Twelve

* * * *

Rebuilt: 1988, the First Baptist Church, Bakersfield, California

Builder: Robert M. Turner, Organ Builder

Robert M. Turner (redesign and tonal finishing)

Action: Electro-pneumatic

Console: All electric, Solid State Combination Action and Multiplex Systems

Ranks: One Hundred Thirty-Three

PRAISE GOD WITH THE ORGAN

A Historical Background

*The Great Organ was originally
designed in 1932 and built for the
Memorial Church at Harvard University.*

The pipe organ has had a long and honorable history. It has been in existence for twenty-three centuries, ever since an inventive Greek rigged up a small hydraulic apparatus to send air through a set of tubes, harking back, of course, to the pipes of Pan. We know that in the first century after Christ, music from an organ of twenty-seven pipes was played to arouse the spectators in the Colosseum.¹

But somewhere between 900 and 1200 A.D., the organ became mainly a church instrument. By Mozart's time the organ had emerged into the concert hall, and he described it in a letter to his father as "the King of instruments." But for the majority of the musical public, it has remained an instrument heard mostly in church as an enhancement to the worship of God.

Most of the great composers over the centuries have written music for the organ as a solo instrument, as well as an accompanying instrument of choir, Johann Sebastian Bach being preeminent. What may be surprising is how much music there is for organ and orchestra, as well as solo compositions, by some of the best known names in modern music. Among them are Copland (a symphony), Poulenc (a concerto), Harris, Barber, Kodaly, Britten, Vaughan Williams, Messiaen, and Durufle.

With this short history in mind, how did the First Baptist Church acquire this great organ of 8531 pipes and 133 ranks?

The Organ originally was designed in 1932 and built for the Memorial Church at Harvard University, Cambridge, Massachusetts, by the Aeolian-Skinner Organ Company of Boston, Massachusetts. It is one of the first instruments designed and voiced by G. Donald Harrison, the tonal director of the company.² Edward W. Flint, graduate manager of the Harvard Glee Club at the time, along with Edward Gammons and William King Covell, stated that the "organ represented the finest instrument then available in the States."³ The organ indeed was considered by many to be Harrison's first great masterpiece, and the movement toward the "American Classic Organ" in the Aeolian-Skinner Organ Company was birthed and pioneered with this instrument.⁴ It was Harrison's largest creation at the time, and he took great pride in it.

This instrument remains today as an important American masterpiece in craftsmanship and is priceless in quality and artistic value in the art of American organ building.⁵ Some of the most outstanding characteristics of the instrument are the distinction and variety of the beautiful solo reed stops and the richness of the reed and flue ensembles when blended together in music of the Romantic period, particularly of the French school. G. Donald Harrison of the Aeolian-Skinner Organ Company was preeminent among all organ builders and created so many of America's famous instruments between 1930 and 1956, the year he died, that we can only list a few: the Mormon Tabernacle in Salt Lake City, Grace Cathedral in San Francisco, the Riverside Church in New York City, and St. Thomas Church in New York City.

In 1968, Harvard University, rather than repairing its worn mechanisms and improving the tonal structure to more traditional principles of earlier centuries that were popular at the time, sold the organ.

The Organ was purchased from the world-renowned organist Virgil Fox...

G. Donald Harrison took the great missionary statesman and organist Dr. Albert Schweitzer . . . to play it.

Renovation, revoicing, and installation . . . was under the gifted direction of Robert M. Turner.

Every one of the 8531 pipes in 133 ranks had to be balanced and checked.

Under the dynamic leadership of Senior Minister Dr. John Allan Lavender (now recently retired), the ministries of the First Baptist Church have flourished. Not the least of these is the Music Ministry, directed by Dr. Phillip C. Dodson, now serving in his twenty-seventh year. Dr. Dodson has been the guiding light behind the organ project. In 1976, the First Baptist Church of Bakersfield, California, purchased the organ from the world-renowned concert organist Virgil Fox, who had a deep personal interest in its installation and design in the new sanctuary of the church. The church dominates the northwest Bakersfield area, and the sanctuary is made of natural woods, heavy plaster, and beautiful stained glass windows, some of which are over 60 years old. The trim, pews, doors, and cabinets, as well as the grill covering the organ chambers, are of red oak. Floor coverings include grouted bomanite, oak parquet, and deep purple and mauve carpeting in the vestibule and auxiliary rooms. Care was taken to assure excellent acoustics in the building.

Before Virgil Fox's untimely death in 1980, he said the following in a recorded interview with Dr. Phillip C. Dodson, Minister of Music and organist of the church, when asked about the organ's historical significance:

"Well, it's of great significance on many scores, but if you add and use the word historical, that is because I think G. Donald Harrison thought so much of it that he took the great missionary statesman and organist Dr. Albert Schweitzer when he was in Boston to see and play it."

Stating his personal goal at that time, he said: "I plan to make the definitive set of recordings of my lifetime upon it." Regarding the cultural impact of this instrument on Bakersfield, his opinion was:

"I think the moment a person has such a vantage point that it changes the cultural climate of the area . . . instead of Bakersfield being called someplace between the two great California cities, with an organ like this, I can tell you that people from San Francisco and Los Angeles will come and will stand in awe of what you are doing in Bakersfield, California."

His feelings about its completion were:

"I think the title of the book that Billy Graham has written called *Angels* figures in what we have been saying . . . the Great Power above which is the Author of all life has directed every one of us that has had any part in this . . . for someone to come and stand it up and to make it sing again, I think that had to do with the Supreme Power . . . to know that this organ is going to have its full song and that it will be where there are many who are going to love it . . . I say every bit of love and congratulations are all yours, and I feel the blessing coming from above is positive and standing right over us."

Renovation, revoicing, and installation of the Organ was under the gifted direction of Robert M. Turner of West Covina, California. His firm also built the new solidstate Taylor Memorial Console. Robert Turner's vision, devotion, and overall concept of this project has included a great respect for G. Donald Harrison's work. In addition to his regard for the great organ building traditions of the past, he has a keen insight into characteristics which made a style great. He is never ready just to copy details slavishly. With him every musical principle has to be justified, and he creates instruments which are of our day, and suited to our needs, representing the best contributions of our past, with each instrument having a highly individual quality. Examples of his work are found in the Church of the Incarnation, New York City; Holy Trinity Lutheran Church, New York City; Trinity Cathedral, Trenton, New Jersey; the historic First Presbyterian Church, Trenton, New Jersey (this outstanding organ was the subject of a PBS documentary on organ building); and the Community Church of Smoke Rise, Kinnelon, New Jersey.

The Organ, as it now stands in the First Baptist Church, is one of the largest organs in the western United States. The bulk of the organ is behind the facade, housed in five chambers. These five bays above the choir loft form, from left to right, the pedal organ, great and more pedal organ, solo organ (back of cross), choir organ, and swell organ.

Inside the chambers, the 30-ton organ is supported by wooden framing. Distributed over the framework are 50 wooden soundboards or "chests" to support and control the pipes, together with air reservoirs, trunking, and actuating mechanisms. The largest pipe in the organ weighs 2000 pounds and is 32 feet high.

After a short look at the interior of the organ, one cannot help but be impressed by the sheer amount of work it represents. There are innumerable components in an instrument of this size, and virtually everything must be made by hand. It is no wonder it took two and one-half years to install the completed organ.

When the installation of the organ was completed, the painstaking work began of tuning and regulating each pipe. How painstaking? Every one of the 8531 pipes in 133 ranks (or stops) had to be balanced and checked for tone and pitch against every other pipe in its rank to achieve the desired ensemble of tone. Every rank then had to be checked against every other rank, and finally, every manual and division had to be checked against every other one of these.

As you look at the facade of pipes, the largest is 18 feet tall. But behind these pipes, there are the thirty-two foot pipes which

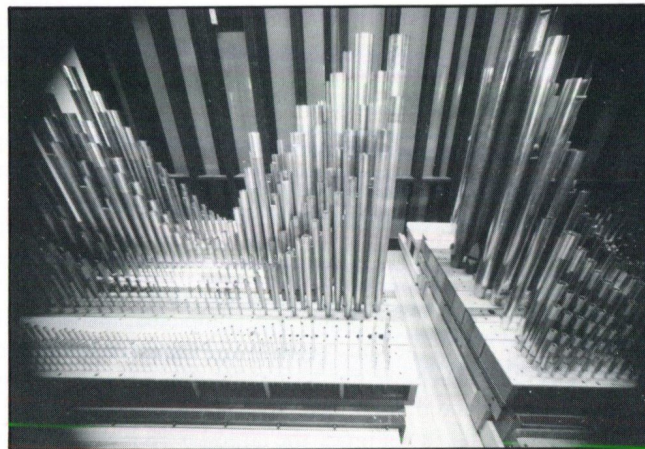
resonate to produce a sound one full octave lower than the lowest sound produced by any orchestral instrument.

Of course, loudness and depth of pitch are only a part of the character of the organ. The real quality of an organ comes from harmonic richness and control. The First Baptist Church organ is designed to demonstrate versatility over the five-hundred year range of organ literature: as a solo instrument, as accompaniment to voices, in antiphonal contrast to an orchestra, and as a full-voice partner augmenting the worship of God. With great flexibility, the organ will be able to raise the polyphonic intricacies of early music with a transparent clarity, to do equal justice to the massive climaxes of the Romantic period, and to make the "new" sounds of the contemporary period.

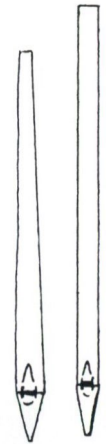
The First Baptist Church expresses its sincere thanks to the men whose hearts, minds, and hands constructed and reconstructed this organ. More than the mere exhibition of their skills, this organ is their act of faith. Because of G. Donald Harrison and Robert M. Turner, knowledgeable advisors; artists, including Virgil Fox; and generous donors, many thousands of people in the years to come will praise God through the beautiful sounds of this magnificent instrument.

The Organ in Progress

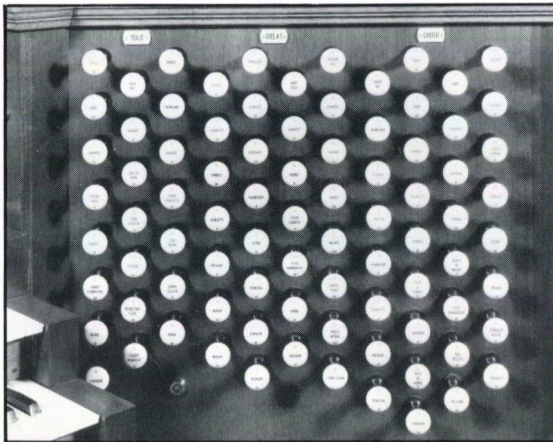
The First Baptist Church organ is designed to demonstrate versatility over the five-hundred year range of organ literature.



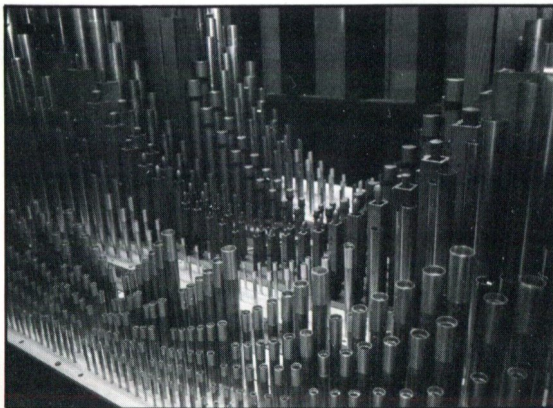
How the Organ Works



Flue Pipes



Drawknobs



Ranks of Pipes

An organ is essentially a very simple instrument. Only its size makes it complicated, for it works on the basic principle of bellows blowing air through pipes.

There are three kinds of pipes: flue pipes, stopped pipes, and reed pipes. **Flue pipes** are open at the top, **stopped pipes** are sealed with a lid at the top, and **reed pipes** produce sound by vibrating reeds. Flue pipes and stopped pipes both work like whistles with the air escaping through the horizontally cut flue, or windway, where the sound originates near the foot of the pipes. Given two pipes of the same length, one flue and one stopped, the stopped will sound an octave lower. The largest pipe of the Pedal Organ is 32 feet long and is a flue pipe. Reed pipes conduct the air as it is introduced into the pipe over paper-thin curved brass reeds. The trumpet pipes at the sides of the balcony, called Trompettes-en-Chamades, are reed pipes. Pipes are made from various metals and woods. Correct proportions of a tin and lead mixture are used for metal pipes, while all the wood pipes are of pine.

Every pipe produces its own note and its own kind of sound, suggesting a string instrument, a woodwind, or brass. The facade of the organ contains 210 pipes, including the Chamades. The remaining 8321 pipes are behind the facade.

How does one play a pipe? At the foot of each pipe is a valve in a wooden wind chest which holds compressed air fed from the blowers located throughout the organ. When a key is pressed, in an organ with electro-pneumatic action, an electrical signal is sent to the wind chests to open or close the magnets and valves that activate the pipes.

The First Baptist Church organ has 8531 pipes. How can all these pipes be controlled by keys? First, the keys are arranged in two kinds of keyboards: **manuals** (for the hands) of which there are four, and **pedals** (for the feet). These are fitted on a **console** which can be plugged into outlets located in six different places in the floor, so that it can be moved to various locations in the sanctuary.

With so many pipes, one key to a pipe is obviously impossible. Thus the system of **stops** or drawknobs is used. On the console, there are 153 white drawknobs to the left and right of the manuals, each starting or stopping the flow of air to a specific set, or **rank**, of pipes. The organist can open the stop to a particular rank of pipes and play a key on the manual. He can then close the stop, open another stop, and play the same key. This will cause a different pipe to sound, since the stop controls the rank of pipes to which the air will go.

Pipes are grouped in ranks according to their tonal qualities and are tuned in progressive notes up the musical scale. Ranks operated from the manuals vary from 61 to 427 pipes per stop, and pipes operated from the pedal vary from 32 to 160 pipes per stop. The Organ has 133 ranks of pipes.

Since stops (and their attendant ranks) are designed to all sound different, they offer the organist a variety of tonal textures and colors. Some stops combine well with others, while some do not. Stops are thus grouped into divisions, with each division having a natural tonal affinity. With all the different combinations of pipes available, an organist's art is often judged by his **registration**, that is, his ability to select and mix subtle combinations of stops. The 133 ranks of pipes of the Organ are grouped into six divisions.

By means of three pedals centered above the pedal-board, the organist can activate devices something like vertical "venetian blinds" that open and close creating crescendos and diminuendos in the swell, choir, and solo divisions. These "venetian blinds" enclose the different divisions in the organ and when open allow more sound to be heard in the main room of the sanctuary.

With large organs having many stops, it can take time to change from one combination of stops to another using the drawknobs. If the organist had to make changes by hand in this way whenever a change of tone color was indicated in the music, there would be intolerable gaps in the music. Thus, a large number of **combination pistons** (buttons) are included under each manual. The touch of a piston will automatically move a group of stops and/or couplers on or off to a combination preset by the organist. This is achieved by the electronic memory systems provided in the console. The Great Organ has 125 pistons and toe studs (activated by the feet), and each combination piston has 24 levels of memory.

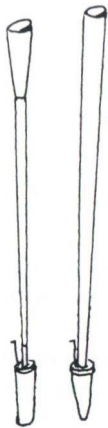
The organ also has 25 **inter-manual** couplers and 9 **intra-manual** couplers. Couplers make it possible to add additional pipes from the same keyboard up or down one octave from the stops already in use. In contrast, the inter-manual couplers allow the coupling-in of pipes from other manuals. These too may be either coupled in unison pitch or at octave or suboctave pitches. All this gives the organist increased dynamic and expressive range and makes it possible to couple additional pipes to each key, over and above the pipes which are normally available to it.

Finally, the organ is provided with a **crescendo pedal** which, as the name suggests, is designed to allow the organist to increase the volume of the organ. This pedal works by gradually bringing more and more stops into operation in a controlled fashion, until the "full organ" sound is being produced. There are four adjustable crescendo pedal memories allowing the crescendo range to be started at four different preset levels.

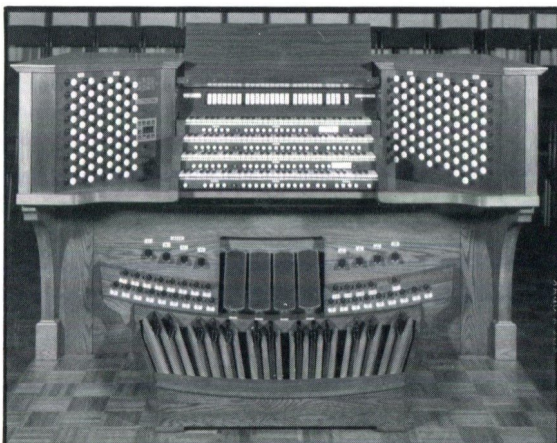
In the organ, the main manual or keyboard division is the second manual called the **Great**. It is the primary support to all other



Combination Pistons



Reed Pipes



Manual Divisions

divisions. It is the home for the major **Principal Chorus** and the tonal center of the organ. The pipes of the **Great** division are housed behind the bay just left of the cross as one faces the choir. The exposed pipes in front of the **Great** are the Great 16' Montre. They are polished zink and tin with 24K gold leaf mouths. At about the time of Martin Luther, and when the great hymnology of the church was evolving, a need for bolstering congregational singing was felt, from which grew the **Great** organ. Within the **Great** division, there is a zimbelstern which is a set of six small bells on a revolving stand. In Jewish temple worship, scrolls and torahs are capped with tinkling silver bells called "paamonim". The scripture suggests in Psalm 150, "Praise God on the high sounding cymbals." Thus the zimbelstern stands as a counterpart of paamonim.

Supplementing the **Great** are three other divisions: the **Swell**, **Choir**, and **Solo**. The **Swell** and **Choir** are accompanimental. Sounds from these divisions range from soft strings, piping flutes, and smooth principals to bold cornets; and there is the incomparable flute celeste, which the great American organ builder Ernest Skinner called "the nearest bit of heaven." The **Choir** division is in the fourth bay to the right of the cross. The **Swell** division is housed in bay five just to the right of the **Choir**.

The **Solo** division is housed in the third bay in back of the cross. It is used in creative dialogue with the other divisions. It has many orchestral stops such as the English horn, French horn, and the Tuba Major which is the loudest stop in the organ. The thrilling sounds of the tubas can hardly be matched.

The **Chamade** division is playable on any manual. These unique Trompette-en-Chamades are horizontal reed pipes which appear at a commanding position above the two solo balconies at the right and left of the main organ 100 feet apart. They are voiced to be heard above the full organ and find their greatest use in fanfares and music of festival occasions. When victory over the infidel Moor was celebrated in Spain, the "Trompeta Battala" or battle trumpets were often inserted **horizontally** in the organ cases of the great Spanish cathedrals as memorials to the battles. The French called them Trompette-en-Chamade. These reed stops also evolved from Trompet Real (Royal Trumpets) played only when the king was present.

The organ contains 28 ranks of reeds. Some of these gentle-to-very-loud stops were first brought to Europe from the Orient by the Crusaders.

There are also 44 ranks of mixtures, the stops that make the organ unique. This is the only musical instrument where the player can actually control the harmonics that naturally occur when a note is played, thereby adding brightness and vitality to the sound and increasing the tonal variety of the instrument.

Finally, there is the **Pedal** organ, most of which is housed in the first bay. There are no less than four 32' stops in the **Pedal** division, two being full length: the 32' Contrebasse and Contre Bombarde. There are many fine wood stops in the **Pedal** organ. The low "C" of the 32' Contrebasse is large enough for a man to stand in. This pipe produces sound at 16 vibrations per second. In contrast, the high "C" of a one foot stop in the **Great** division, the pipe being about 1/4" long, produces sound with over 8000 vibrations per second. The pedal as originally installed was quoted as having more independent voices than any church organ in America (1932).⁶ Of this one division the builder G. Donald Harrison said, "... it is a perfect joy to scale, voice, and tone finish a pedal organ which is on a par with the manual divisions."⁷

FOOTNOTES

1. San Francisco Symphony, "72nd Season Program", April 7, 1984, Permission given to quote freely.
2. Emerson L. Richards, "Harvard Buys an Organ", *The American Organist*, March, 1933; Brock W. Downward, "G. Donald Harrison and the American Classic Organ", Doctoral Thesis, Eastman School of Music of the University of Rochester, New York, 1976; Charles Callahan, "The Clarified Ensemble", *The Organ*, (Part One), 1984; Edward B. Gammons, letter to Phillip C. Dodson, December 17, 1975; Dorothy J. Holden, *The Life and Work of Ernest M. Skinner*, 1985.
3. Edward W. Flint, "The C.B. Fisk Organ at Harvard University", *The Organ*, October, 1968.
4. Emerson L. Richards, "Harvard Buys an Organ", *The American Organist*, March, 1933; Harvard University, *Dedicatory Organ Recital, The Memorial Church*. Supplement; "The Isham Memorial Organ", November 11, 1932; Edward B. Gammons, letter to Phillip C. Dodson, November 20, 1975; December 17, 1975; February 4, 1976.
5. Edward B. Gammons, letter to Phillip C. Dodson, December 17, 1975.
6. Emerson L. Richards, "Harvard Buys an Organ", *The American Organist*, March, 1933.
7. G. Donald Harrison, "Aeolian-Skinner organ, Harvard University", *The American Organist*, December 1932.

Reading the Stop List

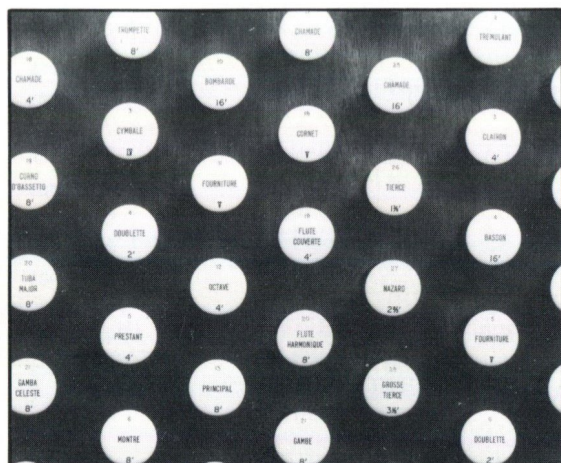
The Great Organ of the First Baptist Church is designed to be **many organs within an organ** rather than merely one large instrument. The great array of stops offers organists choices of tone colors typical of organs from the sixteenth through the twentieth centuries, and from Germany, France, England, Italy, Spain, the Netherlands, and the United States. The stop list gives the divisions of the organ and the stops—with corresponding pitches—within each division.

When reading the stop list, look first at the numbers directly to the left of the stop name. These indicate the pitch of the stops and refer to the length of the lowest pipe in the stop activated by a particular drawknob. (i.e., an 8' Flute, read "eight-foot," is technically eight feet long and is the largest pipe and lowest pitch in the set of sixty-one pipes that make up a set of flutes.) An 8' stop has a pitch identical to that of the same key on the piano; doubling it to 16' produces one octave lower; still lower octaves are 32', lower than any orchestral instrument. Reducing the 8' to 4', 2', 1', 1/2', or 1/4' creates sounds of increasingly higher octaves, producing notes above the musical staff and higher than any instrument in the orchestra.

There are stops other than these normal lengths that sound some intermediate pitch, or harmonic, in between (i.e., the fifth above the octave). These stops, shown on the stop list as having fractional lengths, are drawn together with stops of normal pitch to reinforce a note's natural harmonics. (For example, harmonics of a fifth—as from C to G—are labeled $5\frac{1}{3}$, $2\frac{2}{3}$, $1\frac{1}{3}$, and $\frac{2}{3}$. Overtones of a third—as from C to E—are written $3\frac{1}{5}$ and $1\frac{3}{5}$. It is these stops that make the organ unique as a musical instrument.

The Roman numerals on the list refer to **mixture** stops, which comprise several pipes grouped together and operated as though they were one pipe, simultaneously speaking different harmonics of a note. The corresponding stop knob is drawn, and the numbers to the right describe the pitch of each pipe within the stop. Like the stops previously described, these are also drawn together with stops of normal pitch to vary the tone color, add lows to highs and highs to lows, and create feelings of richness and grandeur.

The names of stops have evolved over the centuries and developed from many traditions and circumstances. Some, like the flute, trompette, and viole are self-explanatory. Others have names for which there is no apparent reason, such as Erzähler, an American stop meaning "story teller". Still others refer to attachments which have nothing to do with the pipes at all. One example of this is the zimbelstern, an embellishment of bells which added a festive splendor to Baroque organs. Another is the chimes having 25 brass tubes that are independently struck with hammers, also the harp which looks very much like a marimba and is played by felted hammers that are operated electro-pneumatically. Regardless of how peculiar the names of stops may appear—Bourdon, Larigot, Montre, Fourniture—they conjure very specific musical sounds to organists, much as the jargon of a new cookbook might conjure tastes and aromas to an experienced cook.



Stop Names



Specification

GREAT ORGAN	(Unenclosed) Manual II	1905 pipes 34
16'	MONTRE	61 pipes
16'	BOURDON	61 pipes
8'	MONTRE	61 pipes
8'	DIAPASON	61 pipes
8'	PRINCIPAL	61 pipes
8'	GAMBE	61 pipes
8'	BOURDON	61 pipes
8'	FLUTE HARMONIQUE	61 pipes
5 1/3'	GROSSE NAZARD	61 pipes
4'	OCTAVE	61 pipes
4'	PRESTANT	61 pipes
4'	FLUTE COUVERTE	61 pipes
3 1/5'	GROSSE TIERCE	61 pipes
2 2/3'	NAZARD	61 pipes
2'	DOUBLETTE	61 pipes
1 3/5'	TIERCE	61 pipes
V	CORNET (MC)	185 pipes
V	FOURNITURE	305 pipes
IV	CYMBALE	244 pipes
16'	BOMBARDE	61 pipes
8'	TROMPETTE	61 pipes
8'	TROMPETE	61 pipes
4'	CLAIRON	61 pipes
	ZIMBELSTERN	6 bells
	TREMULANT	
	HARP	(Choir)
	CELESTA	(Choir)
16'	CHAMADE (balcony left side)	
8'	CHAMADE (balcony right side)	
4'	CHAMADE (balcony left side)	

Wind pressure: 90 mm

SWELL ORGAN	(Enclosed) Manual III	2351 pipes 32
16'	VIOLON - BASSE	73 pipes
16'	BOURDON	73 pipes
8'	DIAPASON	73 pipes
8'	BOURDON	73 pipes
8'	FLUTE CREUSE	73 pipes
8'	VIOLE DE GAMBA	73 pipes
8'	VOIX CELESTE	73 pipes
8'	FLAUTO DOLCE	73 pipes
8'	FLUTE CELESTE (TC)	61 pipes
8'	FLUTE-EN-BOIS	73 pipes
8'	BOIS CELESTE (TC)	61 pipes
4'	PRESTANT	73 pipes
4'	FLUTE OCTAVIANTE	73 pipes
4'	FUGARA	73 pipes
2 2/3'	NAZARD	61 pipes
2'	OCTAVIN	61 pipes
1 3/5'	TIERCE	61 pipes
III	CORNET (TC)	147 pipes
IV	FOURNITURE	244 pipes
IV	CYMBALE (preparation)	244 pipes
16'	BOMBARDE	73 pipes
16'	BASSON (preparation)	73 pipes
8'	TROMPETTE	73 pipes
8'	TRUMPET	73 pipes
8'	BASSON - HAUTBOIS	73 pipes
8'	VOIX HUMAINE	61 pipes
4'	CLAIRON	73 pipes
	TREMULANT	
16'	CHAMADE (balcony left side)	
8'	CHAMADE (balcony right side)	
4'	CHAMADE (balcony left side)	
16'	SWELL TO SWELL	
	SWELL UNISON OFF	
4'	SWELL TO SWELL	

Wind pressure: 108 mm

CHOIR ORGAN	(Enclosed) Manual I	2083 pipes	30
16'	DULCIANA	73 pipes	
16'	BOURDON	73 pipes	
8'	PRINCIPAL	73 pipes	
8'	BOURDON	73 pipes	
8'	FLUTE TRAVERSIERE	73 pipes	
8'	VIOLE DE GAMBE	73 pipes	
8'	VOIX CELESTE	73 pipes	
8'	ERAZHLER	73 pipes	
8'	ERZHLER CELESTE (TC)	61 pipes	
4'	PRESTANT	73 pipes	
4'	FLUTE A FUSEAU	73 pipes	
2 2/3'	NAZARD	61 pipes	
2'	DOUBLETTE	61 pipes	
2'	QUARTE DE NAZARD	61 pipes	
1 3/5'	TIERCE	61 pipes	
1 1/3'	LARIGOT	61 pipes	
1'	PICCOLO	61 pipes	
V	FOURNITURE	305 pipes	
III	CYMBALE (preparation)	183 pipes	
16'	BASSON	73 pipes	
8'	TROMPETTE	73 pipes	
8'	CROMORNE	73 pipes	
8'	CORNO D' AMORE (Cor d' Lavender)	73 pipes	
4'	CLAIRON	73 pipes	
	TREMULANT		
	HARP	61 bars	
	CELESTA		
16'	CHAMADE (balcony left side)		
8'	CHAMADE (balcony right side)		
4'	CHAMADE (balcony left side)		
16'	CHOIR TO CHOIR		
	CHOIR UNISON OFF		
4'	CHOIR TO CHOIR		

Wind pressure: 103 mm

SOLO ORGAN	(Enclosed) Manual IV	1510 pipes	20
8'	DIAPASON	73 pipes	
8'	FLAUTO MIRABILIS	73 pipes	
8'	GAMBA	73 pipes	
8'	GAMBA CELESTE	73 pipes	
4'	OCTAVE	73 pipes	
4'	ORCHESTRAL FLUTE	73 pipes	
VII	GRAND FOURNITURE	427 pipes	
16'	POSAUNE	73 pipes	
8'	TUBA MAJOR	73 pipes	
8'	TRUMPET	73 pipes	
8'	FRENCH HORN	73 pipes	
8'	ENGLISH HORN	73 pipes	
8'	CORNO D' BASSETTO	73 pipes	
4'	TUBA CLARION	73 pipes	
	TREMULANT		
	CHIMES	25 tubes	
16'	CHAMADE (balcony left side)		
8'	CHAMADE (balcony right side)		
4'	CHAMADE (balcony left side)		
16'	SOLO TO SOLO		
	SOLO UNISON OFF		
4'	SOLO TO SOLO		

Wind pressure: 178 mm
Tubas: 304 mm

EN CHAMADE ORGAN	(Unenclosed) All Manuals	146 pipes	2
16'	CHAMADE (balcony left side)	61 pipes	
8'	CHAMADE (balcony right side)	61 pipes	
4'	CHAMADE (balcony left side)	24 pipes	

Wind pressure: 125 mm

PEDAL ORGAN	(Unenclosed)	536 pipes
32'	CONTRE-BASSE	32 pipes
32'	SOUBASSE	32 pipes
16'	FLUTE OUVERTE	32 pipes
16'	BOURDON (from #2)	12 pipes
16'	CONTRE-BASSE (from #1)	12 pipes
16'	MONTRE	32 pipes
16'	MONTRE	(Great)
16'	VIOLON-BASSE	(Swell)
16'	DULCIANE	(Choir)
16'	BOURDON	(Choir)
8'	OCTAVE (from #1)	12 pipes
8'	MONTRE	32 pipes
8'	FLUTE OUVERTE (from #3)	12 pipes
8'	BOURDON	12 pipes
8'	FLUTE DOUX	32 pipes
4'	PRINCIPAL (from #12)	12 pipes
4'	FLUTE (from #15)	12 pipes
V	FOURNITURE	160 pipes
32'	CONTRE-BOMBARDE	32 pipes
32'	CONTRE-BASSON (Swell) (preparation)	12 pipes
16'	BOMBARDE (from #19)	12 pipes
16'	POSAUNE	(Solo)
16'	BOMBARDE	(Swell)
16'	BASSON (preparation)	(Swell)
8'	TROMPETTE	32 pipes
8'	BASSON	(Swell)
4'	CLAIRON (from #25)	12 pipes
4'	BASSON (preparation)	(Swell)
8'	CHAMADE (balcony right side)	(Solo)
	CHIMES	
	BLANK	
	BLANK	
	BLANK	
	BLANK	

Wind pressures: 90 mm - 150 mm

COUPLERS

GREAT TO PEDAL		8'	
CHOIR TO PEDAL		8'	4'
SWELL TO PEDAL		8'	4'
SOLO TO PEDAL		8'	4'
SWELL TO GREAT	16'	8'	4'
CHOIR TO GREAT	16'	8'	4'
SOLO TO GREAT	16'	8'	4'
SWELL TO CHOIR	16'	8'	4'
SOLO TO CHOIR	16'	8'	4'
SOLO TO SWELL	16'	8'	4'
GREAT TO CHOIR TRANSFER			

COUPLER REVERSIBLES (Affecting Unisons Only)

GREAT TO PEDAL	Thumb and Toe Pistons
SWELL TO PEDAL	Thumb and Toe Pistons
CHOIR TO PEDAL	Thumb and Toe Pistons
SOLO TO PEDAL	Thumb and Toe Pistons
SWELL TO GREAT	Thumb Piston
CHOIR TO GREAT	Thumb Piston
SOLO TO GREAT	Thumb Piston
SWELL TO CHOIR	Thumb Piston
SOLO TO CHOIR	Thumb Piston
SOLO TO SWELL	Thumb Piston

COMBINATION ACTION (24 Memories with Locks)

Manual Pistons:

COUPLERS	0	1	2	3	4							
SOLO	0	1	2	3	4	5	6	7	8	9	10	
SWELL	0	1	2	3	4	5	6	7	8	9	10	
GREAT	0	1	2	3	4	5	6	7	8	9	10	
CHOIR	0	1	2	3	4	5	6	7	8	9	10	
PEDAL	1	2	3	4	5	6	7	8				
GENERAL	1	2	3	4	5	6	7	8	9	10	11	
	12	13	14	15	16	17	18					
GENERAL CANCEL	1											
SET	1											
Toe Pistons:												
PEDAL	1	2	3	4	5	6	7	8				
GENERAL	1	2	3	4	5	6	7	8	9	10	11	
	12	13	14	15	16	17	18					

ACCESSORY FUNCTIONS

ADJUSTABLE CRESCENDO MEMORIES 4

ADJUSTABLE VENTILS
Toe Studs with
Indicator Lights
Thumb & Toe Piston

ADJUSTABLE TUTTI

BLIND CHECK

ALL SWELLS TO SWELL

ZIMBELSTERN REVERSIBLE

32' CONTRE-BOMBARDE REVERSIBLE

32' SOUBASSE REVERSIBLE

32' CONTRE-BASSE REVERSIBLE

TRANSPOSER
Rotary Control



The Organ As A Musical Instrument

The Great Organ of the First Baptist Church as taken from the chapel at Harvard University was a challenge to reconstruct. The shape of the pipes, the metal, the windage, and careful voicing of old and new pipes have been combined to create a great contemporary musical instrument. This cohesive whole was made possible through the present master organ builder Robert M. Turner.

All this has been done to "let every thing that has breath praise the Lord." Witness the fountains of pipes standing at either side of the cross. This fountain shape symbolizes Christ as the Fountain of Life. The achievement musically and architecturally is a monument of praise to God.

"The organ is, in truth, the most daring, the most magnificent of all instruments invented by human genius
Surely it is, in some sort, a pedestal on which the soul poises for a flight into space—
To cross the infinite that separates heaven from earth."

—Balzac

"There let the pealing organ blow, to the full-voiced quire below, in service high and anthems clear, as may with
sweetness, through music hear,
Dissolve me into ecstasies, and bring all heaven before mine eyes."

—Milton

"Suddenly the notes of the deep-laboring organ burst upon the ear, falling with doubled and redoubled intensity, and rolling as it were, hugh billows of sound. How well do their volume and grandeur accord with this mighty building! With what pomp do they swell through its vast vaults, and breathe their awful harmony through these alcoves . . . And now they rise in triumph and acclamation, heaving higher and higher their accordant notes, and piling sound on sound . . . And now they pause . . . Again the pealing organ heaves its thrilling thunders, compressing air into music, and rolling it forth upon the soul. What long-drawn cadences! What solemn sweeping concords! It grows more and more dense and powerful . . . It fills the vastness, and seems to jar the very walls . . . The ear is stunned . . . The senses are overwhelmed. And now it is winding up in full jubilee . . . It is rising from earth to heaven . . . The very soul seems rapt away, and floated upwards on this swelling tide of harmony."

—Washington Irving's "**Sketch Book**"
The description of the organ playing
in Westminster Abbey.