

Organ in St. Paul's Chapel  
Columbia University      New York



The Ernest M. Skinner Co.  
Builders  
Dorchester, Massachusetts

## SPECIFICATION

### Great Organ

THIRTEEN STOPS

Diapason,	16 feet	Octave,	4 feet
First Diapason,	8 "	Flute,	4 "
Second Diapason,	8 "	Fifteenth,	2 "
Gross Floete,	8 "	Trumpet, (from Swell)	6 "
Erzähler,	8 "	Trumpet,	8 "
Gamba,	8 "	Clarion, (from Swell)	4 "
Gedackt, (from Swell)	8 "		

### Swell Organ

NINETEEN STOPS

Bourdon,	16 feet	Octave,	4 feet
First Diapason,	8 "	Flautino,	2 "
Second Diapason,	8 "	Cornet,	3 ranks
Gross Floete,	8 "	Trumpet,	16 feet
Spits Floete,	8 "	Cornopean,	8 "
Salicional,	8 "	Oboe,	8 "
Voix Celestes,	8 "	Vox Humana,	8 "
Gedacket,	8 "	Clarion,	4 "
Aeoline,	8 "	Tremolo,	
Flute,	4 "		

### Choir Organ

THIRTEEN STOPS

Dulciana,	16 feet	Flauto Traverso,	4 feet
Diapason,	8 "	Piccolo,	2 "
Dulcet,	8 "	Fagotto,	16 "
Dulciana,	8 "	Orchestral Oboe,	8 "
Concert Flute,	8 "	Clarinet,	8 "
Unda Maris,	8 "	Tremolo,	
Quintadena,	8 "		

### Solo Organ

TEN STOPS

Stenforphone,	8 feet	Concert Flute, (from Choir)	8 feet
Philomela,	8 "	Fagotto, (from Choir)	16 "
Dulcet, (from Choir)	8 "	Oboe, (from Choir)	8 "
Dulciana, (from Choir)	8 "	Flute,	4 "
Unda Maris, (from Choir)	8 "	Tuba,	8 "

### Pedal Organ

FOURTEEN STOPS

Gravissima,	64 feet	Quinte,	10 $\frac{2}{3}$ feet
Diapason,	32 "	Cello, (from Swell)	8 "
Diapason,	16 "	Flute,	8 "
Violone,	16 "	Gedackt,	8 "
Bourdon,	16 "	Flute,	4 "
Dulciana, (from Choir)	16 "	Trombone,	16 "
Gedackt, (from Swell)	16 "	Tromba,	8 "

The organ has twenty-six couplers, twenty-four combination pistons duplicated by pedals, a balanced crescendo, sfzando and great to pedal reversible.

The action is electro pneumatic.

The specification of the organ is along the lines of the one recently installed in Plymouth Church, Brooklyn, New York. It was prepared by Mr. Ernest M. Skinner, in consultation with Mr. Samuel A. Baldwin.

While St. Paul's Chapel has magnificent acoustic properties, the installation of the organ was a problem of great difficulty, owing to the peculiar formation of the organ chamber. The greatest care has been observed in so disposing of the various portions of the instrument that the tone should not be obstructed, or unfavorably placed. The usual policy of the builders has been observed in avoiding the over development of any of the various families of tone. The modern tendency is to exaggerate the several varieties of tone in the voicing, as much as possible. This practice results in no harmonics in the flutes and an excess of harmonics in the strings, in consequence of which, having nothing in common, flutes and strings, when drawn together, do not make a homogeneous tone; in other words, they do not blend, each stop being, if anything, more in evidence than when drawn by itself.

In the voicing of this organ the octave harmonic in each stop has been the one most sought for. This harmonic is developed to a remarkable extent in the great organ *Erzähler*, the octave being equally prominent with the fundamental tone.

Great care has been observed in maintaining a just proportion between the basses and the trebles, so that the melodic note is always most prominent. This has resulted in a quality in the tone best described as one of cheerfulness or buoyancy. When over done, the tone becomes strident. Where the scale is not regulated from the bass to the treble with a sufficient crescendo, the general tone lacks definition, or distinctness. No detail of the development of organ tone is more exacting in its requirements, or suffers so much from lack of careful treatment as this single feature.

Attention is called to the *Orchestral Oboe*, of which this is the first example of its kind. It is a perfect reproduction in its tone of the quality of the orchestral instrument, and was designed by Mr. Skinner. The characteristic quality is the result of placing a sympathetic resonator in the top of the pipe. The *Vox Humana* is a new type, brought to this country by Mr. F. S. Brockbank. It is remarkable for its quality of blending with every other voice of similar power in the instrument. The great organ *Gamba* is so voiced that it may be used in combination with any of the great organ stops, without restriction. In this respect, it is exceptional. It is not an uncommon condition for a *Gamba* placed on the great organ manual to deteriorate the tone of the full great organ; its use in this account being somewhat limited. By developing harmonics, or upper partials in the *Gamba* common to those of the other stops of the great organ, the *Gamba* quality is not sacrificed, and its usefulness in combination with other stops vastly increased.

There are two points in regard to the construction and voicing of the pipes of this organ worthy of remark; namely, the width of the mouths of the pipes in no case exceeds one-fifth the circumference, and the customary bevelling or sharpening of the upper lips of the pipes has given place to the somewhat revolutionary policy of leaving the pipes absolutely blunt or square. The effect of this treatment is to impart a richness to the tone and to render the speech much more certain. As it is a number of years since Mr. Skinner first made this discovery, the value of this treatment is now thoroughly established, and this rule has been followed even in the most delicate strings.

The specification is so made up as to constitute a crescendo from the softest stop to the loudest, which combined with the blending properties of each stop, greatly enriches the instrument in possibilities of registration. No stop is voiced on less than a six inch wind pressure. The great trumpet, pedal organ and solo flue work being on ten inches, and the Tuba on fifteen inches.

The action is electro pneumatic. The flue work was voiced by Mr. Walter Birkmaier, and the reeds by Mr. F. S. Brockbank, both of the Ernest M. Skinner Company.

In this era of steady wind pressure, the tremolo has become a difficult proposition, and in consequence somewhat lost sight of, owing to the difficulty of shaking the wind. In this instrument, the tremolo has been restored to its proper position of effectiveness, without compromising the wind supply, its character being very similar to the vibrato of the human voice.

## SOME OPINIONS

CONCERNING THE ORGAN IN ST. PAUL'S CHAPEL  
COLUMBIA UNIVERSITY

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BROOKLYN, NEW YORK, February 3, 1907.

My dear Mr. Skinner:—

I have been much interested in the organ at Columbia University from the beginning, and now, after having had ample opportunity to thoroughly test the instrument, I am most enthusiastic over the outcome, and desire to express to you my heartiest congratulations.

The voicing is all that could be desired. While each individual stop is characteristic, none are so extreme that they will not blend with any other stop. This seems to me a fundamental principle of good organ building.

The volume of the full organ is singularly noble and dignified, of very great power without any deterioration of quality.

The action offers just the right amount of resistance to the fingers, and the whole arrangement of the console is so natural and comfortable that one feels as if he had played on the organ all his life.

Faithfully yours,

[SIGNED] SAMUEL A. BALDWIN

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NEW YORK, February 3, 1907.

My dear Mr. Skinner:—

Whenever I am called upon to play one of your organs, it is with a deep satisfaction that I compose my programme. I know that every stop has an artistic value; be it soft or loud each one is an eloquent voice and whatever may be the character of the composition, I choose to perform, I know that I will find the tone quality which will bring it out. The touch of your organs is delightful and one feels perfect comfort when seated at the desk, a feature for which the organists will thank you, especially since the appearance of those "get-use-to-it" pedal key boards.

With best wishes for your future success, I remain,

Yours cordially,

[SIGNED] GASTON M. DETHIER

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NEW YORK, December 18, 1906.

My dear Mr. Skinner:—

It was with great pleasure and keen interest that I played on your new organ at Columbia University. Partly due to the characteristic voicing and partly to the acoustic properties of the chapel I consider the effect to be unique in America and sure to be far-reaching in influence upon professional and layman. The action is particularly responsive so that I find myself able to play very difficult passages with great clearness and ease. The attack and repetition I should call perfect. Altogether I congratulate you upon the effect of the instrument.

Sincerely yours,

[SIGNED] CHARLES HEINROTH