

## THE NEW GRAND OPERA HOUSE, PARIS.

So much has been said and written about this remarkable structure, that our readers will be interested in the view of the building we give herewith. It was designed by M. Garnier, a young architect, who by this work has achieved a world-wide fame.

The building has been justly characterized as the finest architectural work of modern times. The view we give of it does not, however, give an adequate idea of its magnitude. The view is that of the façade, and the smaller engravings show some of the details of ornamentation.

The general plan of the building is that of a rectangle, 574 feet in depth by 196 in width. Its cost has been estimated at \$8,000,000, one half of which was decayed by the French Government, and one half by the municipality of Paris.

The order of architecture M. Garnier has chosen is Corinthian. In the basement there are five main arched entrances approached by a broad flight of steps, and two more at the wings which open upon the street level; between the doorways the wall is enriched with groups of statuary, and heads carved in relief upon medallions, wreath encircled, and with the name of the original below each medallion—the names of the great masters of music.—Above the basement rise eight pairs of Corinthian columns, executed in white stone. The intervening bays are occupied, each, by a window opening upon a gallery, the top of whose balustrade coincides with the bases of the columns. The gallery is a vaulted as a promenade. Smaller columns between the large range reduce the width of the windows, and support minor entablatures, with circular recesses containing each a gilded bust of a great musician. At the wings the larger columns support circular pediments, which are filled with sculptured groups in relief. The cornice over the row of main columns, extending along the whole frontage of the building, has inscribed upon it in gilded letters the words "Chorographie" and "Harmonie" upon each of the wings—upon the body of the building, "Académie Impériale de Musique." Above the cornice rises a deep frieze, bearing four groups of figures immediately over the columns supporting circles, within which the initial of the Empress is inscribed, the intermediate panels being enriched with a circular wreathed medallion filled with the letter N. The top of the frieze is completed with a series of classic masks, representing Tragedy and Comedy alternately, cast in bronze, and gilded. The wings of the building are surmounted with groups of statuary, at one end the Genius of Poetry, at the other the Spirit of Music. Above the frieze in the center of the building, and crowning the body of the theater, rises a decorated dome, whilst is seen a pediment forming the one face of a large roof which covers the stage and offices of the building. The apex is surmounted by a group, of which Apollo forms the central figure, whilst at the springing of the pediment stands on each side the presentment of Genius curbing in a rearing Pegasus.

On the side elevations of the opera house, the architectural details which characterize the façade, are preserved, the line is broken below by the presence of a semicircular pavilion on each of the lateral frontages. Here, too, is seen the side elevation of the large roof spanning the stage, so that a totally different aspect to that of the main façade is obtained. At the rear there is but a small pretense to architectural effect.

Every part of the building is fire-proof. The walls and staircases are of stone, the columns—five hundred in number—supporting them and the tiers of boxes are of marble from Mont Blanc. All that in an ordinary building would be

of timber—the carpenters' work—is of iron. The only inflammable material will be the scenery—easily separable from the auditorium and its dependencies—and the paneling and drapery of the boxes. An alarm of fire—from which, even if proved false, such frightful results have ensued in public places—will certainly be accompanied by the minimum of danger, so numerous and capacious are the outlets.

The ceiling will, when finished, be composed of a vast number of plates of copper screwed one to the other in such a way as to be easily put together and taken to pieces again, and thus permitting the ceiling to be raised or lowered at will. The whole is divided into several sections, which are now being painted with allegorical representations of the hours of day and night, more than a hundred figures being included

said to have been the production of Koster about the year 1430. This date has been arrived at from contemporaneous circumstances bearing upon the subject, and which, if correct, places Koster's right in the matter many years prior to Gutenberg's earliest attempts towards the perfection of the invention.

"In disputing that Koster was the originator of the art of printing from movable types, some of the supporters of Gutenberg, while admitting that Koster issued the 'Speculum Humanæ Salvationis,' have contended that it was a block book, as Koster's occupation, previous to 1430, was that of engraving and printing such books; but a critical examination of the work in question has shown that fac-simile defects in particular letters have been detected throughout the entire work. A single instance, too, of an inverted letter, and several typographical errors in the substitution of similarly shaped letters for the correct ones (a fault that has been faithfully copied by too many of the latest imitators of their celebrated predecessor), show that the 'Speculum Humanæ Salvationis' could not have been an engraved book, or these discrepancies would not have been made.

"It is supposed that the first efforts of Gutenberg to introduce the invention of printing from movable types into Germany, took place at Mayence about the year 1436, although it does not conclusively appear that any productions of his press were issued previous to 1455 or 1466, the probable date of the publication of his Bible. It is reasonable to infer, however, that before the completion or even the beginning of that great work, minor experiments were made to demonstrate the success of his enterprise.

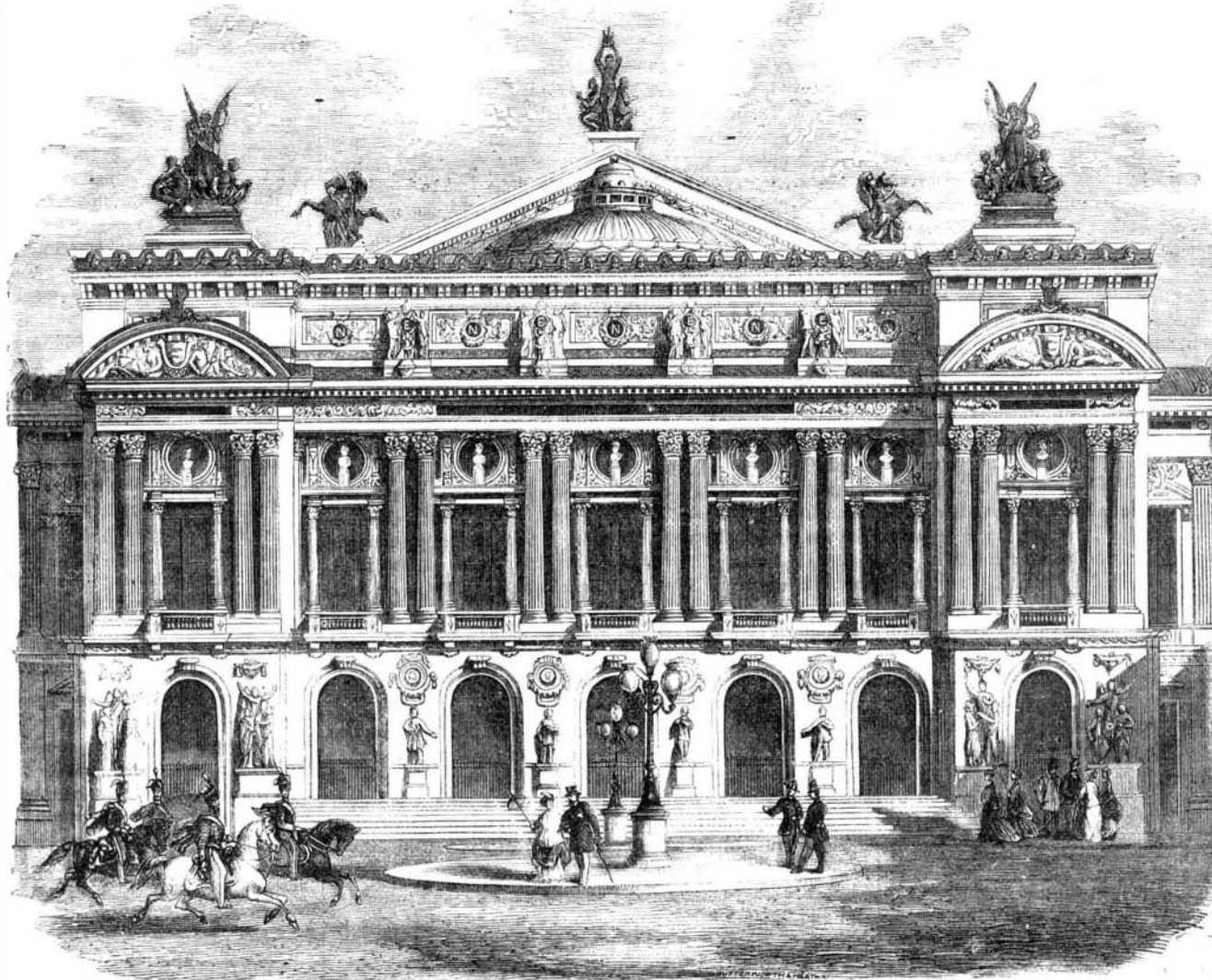
Koster's supporters agree that Gutenberg

received his first knowledge of printing from movable types from a workman (thought by some to be Fust), who had left Koster's service in Holland, and fled to Germany with tools and specimens of the workmanship of Koster. The mechanical excellence of Gutenberg's productions being so much superior to the earlier efforts of Koster, it is not improbable that in the material progress and success of the art in the hands of the former, Koster's still greater originality was soon lost sight of.

"While Gutenberg's name is more prominent than those of his associates, Fust and Schoeffer, as the master-mind of their great undertaking, it is more than likely that his stupendous work, the Bible, was issued by the latter two; it appearing that his interest in the business was brought to a lamentable termination by the foreclosure of a mortgage held against him by John Fust (Gutenberg's partner, and thought by some to be the uncle of Fust, Koster's workman), for moneys advanced to further and complete his ideas, and that Gutenberg, having up to the time of the foreclosure received no profit from his labors, was forced to retire just as his noble work was on the eve of a glorious consummation. It matters little whether to Koster or Gutenberg is due the credit of the most valuable invention ever produced for the elevation of the human race; but the genius of Gutenberg, as displayed in his wonderful achievement of the first Bible printed from movable types, is bound to perpetuate his name and works until printing is no more."

ACCORDING to a recent author, iridium, as used in coloring glass and porcelain, gives a tint of such intense blackness, that if charcoal does not make a white mark upon it, all other blacks appear brown by the side of it.

THE caisson for the Brooklyn end of the East River Bridge was successfully launched on Saturday, March 19, and will soon be in position.

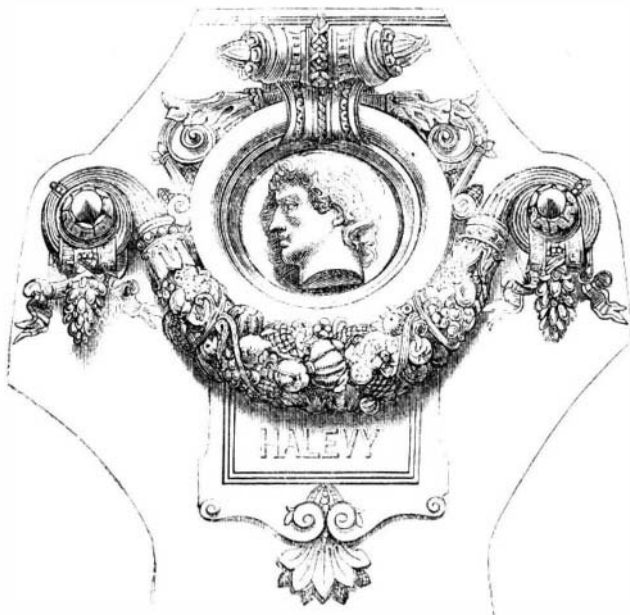


## NEW GRAND OPERA HOUSE AT PARIS.

in the whole. The place in which the artist carries on his labor is situated in the grand cupola over the pit, and forms an immense rotunda, 120 feet in diameter, and 65 feet in height.

## The Invention of the Art of Printing.

The *Typographic Messenger* says: "While the majority of bibliographers concede to Gutenberg, of Germany, the inestimable honor of inventing printing from movable types, there are many others who contend that to Koster, of Holland, is due the merit of the invention, and that Gutenberg was



but an improver upon Koster's idea. This difference of opinion has led to much investigation into the merits of the respective claimants for this distinguished honor, and the work of Mr. Humphreys, including, as it does, the latest facts on the subject brought to light, seems to indicate strongly that to Holland the world is indebted for the birthplace of the wonderful 'art preservative of all arts.' Copies of a work entitled the 'Speculum Humanæ Salvationis' (the Mirror of our Salvation)—claimed to be the first book ever printed in which movable types were employed—are still in existence, and are