

To avoid risk of fire, these galleries have skylights, no artificial illumination being allowed. They resemble huge cages, for the floors are of open ironwork, which admit the light through the several stories. The only drawback to this arrangement—a drawback which cannot be avoided—is that during fogs which are so prevalent in London during the winter months no books from these galleries can be obtained. Despite the extensive accommodation which was provided, owing to the Copyright Act—under which a copy of every book and paper published in the United Kingdom has to be sent to the British Museum—the number of volumes increased to such gigantic proportions that a special contrivance had to be resorted to in order to provide room for them. This takes the form of sliding-presses, consisting of a framework fitted with shelves open back and front so as to receive volumes on each side. These shelves are suspended on girders, and running smoothly on wheels, can be easily moved backwards and forwards. They supplement the standard presses, and by this means the books in many places are six deep! All these presses are made of iron plates, the shelves being covered with leather.

Many of the choicest books which the library contains were bequeathed to the nation by private donors; others have from time to time been purchased by the trustees out of the grants made annually to the British Museum by Parliament. It is impossible to form an accurate estimate as to the value of some of the choicest books, for many in the library are the only known copies; but several have previously been sold at prices approaching five thousand pounds each. Probably the gem of the collection is the Latin Bible, which was printed in Mainz at Mentz about the year 1455. This is the earliest complete printed book known. "The Dietes or Sayings of the Philosophers," which was translated from the French by Anthony Waderville, Earl Rivers, and printed by William Caxton at Westminster in 1477, is the first volume known with certainty to have been printed in England. Other specimens of the earliest productions of the printing-press in England include "The Game and Playe of the Chess," "The Book of Tales of Cauntyrburye," and the English version of Aesop's Fables. Among the numerous old copies of the Scriptures and religious works are Martin Luther's translation of the Bible, and Miles Coverdale's Bible, dated 1530; the New Testament which belonged to Anne Boleyn; "The Assertion of the Seven Sacraments," the book which procured for Henry VIII. from Pope Leo X. the title of "Defender of the Faith," ever since borne by the British sovereigns; the "Lives of the Archbishops of Canterbury," which was presented to Queen Elizabeth by its author, Archbishop Parker; the "Codex Alexandrinus," an ancient Greek copy of the Scriptures supposed to have been executed by Thecla, a lady of Alexandria, in the fourth or fifth century, and presented by Cyril I. near, the Patriarch of Constantinople, to Charles I. The last-named is one of the two most ancient copies of the Scriptures in existence.

The manuscripts in the British Museum form the finest collection in the world. Among the most interesting are "the Recognitions" of Clement of Rome in Nyria, dated about 41; the English version of Wycliffe's Bible, written towards the close of the fourteenth century; the orations of Hyperides, Homer, Aristoth, etc., and the "Bull of Pope Innocent III., whereby he receives in fee the Kingdom of England, given to the Roman Church by virtue of a charter confirmed by the Golden Seal of King John, and takes it into Apostolic protection: Given at St. Peter's, 11 Kalends of May, A.D. 1214, and of the Pontificate of Pope Innocent the seventeenth year."

It would be impossible, owing to exigencies of space, to mention even a small proportion of the historical deeds which are to be seen in the library; suffice it to say that they include an ancient copy of the famous Magna Charta—the original copy is no longer in existence—granted by King John, and the charter granted by William the Conqueror for the foundation of Battle Abbey in Sussex after the battle of Hastings in 1066.

Reference has already been made to the Copyright Act of 1842, under which the Museum is entitled to a gratuitous copy of every printed book, newspaper, or document published in the United Kingdom; and it is this provision which has contributed largely to the tremendous growth of the library—a growth which has for a considerable time occupied the serious attention of the fran-

tees, for it soon became apparent that unless further accommodation could be provided, especially for the newspapers, all the available space would be filled. We have seen the ingenious method of hanging-presses, by which a vast collection of additional books can be stored; and, as showing the stupendous growth in the number of volumes, it may be pointed out that in 1753 the library started with about forty thousand books; in 1821 the number had only reached one hundred and sixteen thousand; in 1838 it was two hundred and thirty-five thousand; twenty years later it had reached five hundred and fifty thousand; while in 1896 there were one million seven hundred and fifty thousand volumes, not counting a single sheet or parts of works accumulating. Since then the growth has been much more rapid, and it is estimated that there are now about three million five hundred thousand volumes in the library. The work of arranging this collection is a stupendous undertaking; for each book has to be classified, and the press-mark indicating its locality has to be affixed on the back. According to the latest parliamentary return the total number of these press-marks during 1905 amounted to seventy-four thousand eight hundred and seventy-five; in addition to which thirty-seven thousand four hundred and four press-marks have been altered in consequence of changes and re-arrangements, nearly thirty-one thousand labels have been fixed to books and volumes of newspapers, and one hundred and fifteen thousand four hundred and ninety-seven obliterated labels have been renewed. There is a corresponding amount of work to be done in cataloguing. A large staff is engaged in the binding and repairing of books at the Museum. The number of volumes and sets of pamphlets sent to be bound in the course of last year was eleven thousand nine hundred and eighty-five, including three thousand three hundred and twenty-eight volumes of newspapers; while over twenty-five thousand books have been repaired.

The number of newspapers published in the United Kingdom received under the provisions of the Copyright Act during the year was three thousand two hundred and sixty-one, comprising two hundred and twenty-one thousand two hundred and sixty-nine single numbers; in addition to which large numbers of colonial and foreign newspapers, together with broadsides, parliamentary papers, etc., have either been presented or purchased.

With regard to the newspapers, it was calculated in 1882 that the space available at the Museum would be sufficient for thirty-three years; but since that time there has been such an enormous accumulation that the authorities have tried several means to cope with the pressure. Some time ago additional storage-room was provided in the basement and the new buildings; but this has practically been filled. The British newspapers in 1837 only occupied about forty presses, whereas now there are two and a-quarter miles of presses; besides which accommodation has had to be provided for the colonial, American, and foreign newspapers. Some time ago land was obtained at Hendon, where a repository for storage of newspapers and other printed matter is now in course of construction; and it is believed that the extra accommodation which will thus be provided will be sufficient to meet the demands for a very considerable period.

The cost of the construction of the reading-room and the surrounding galleries was one hundred and fifty thousand pounds; and the expenditure on purchases alone for the Museum up to 1875 was considerably over one million pounds. The Government has been very liberal in making large annual grants, sometimes amounting to upwards of one hundred thousand pounds, in order that the collections should be of the most representative character; and it was owing to the generosity of the late Sir William Harcourt, when Chancellor of the Exchequer in 1896, that the additional freehold land, on which sixty-eight houses stood, was secured at a cost of two hundred thousand pounds to meet the growing needs of the Museum. These houses are gradually being demolished, and when the whole of them have disappeared the authorities will possess a square plot of thirteen acres completely isolated by the surrounding roadways.

It is considered that this land will be sufficient to meet the requirements of the trustees for another century, but no one can prophesy with accuracy as to the growth of the Museum even in the immediate future. In the past all such pro-

dictions have been completely falsified; but, in the words of Macaulay, the Museum will remain "the repository of such various and precious treasures of art, science, and learning as were scarce ever assembled under a single roof."—"Chambers' Magazine."

## Secrets of the Pantomime.

### HOW STAGE EFFECTS ARE PRODUCED.

In a popular pantomime now running there is a military scene, in which a battery of artillery is heard galloping over a plain, says a writer in "Answers." Of course, a battery of artillery cannot possibly gallop behind the scenes in order to produce the effects, so the sounds of rattling guns are artificially made in this way. A quantity of sand, with some loose bricks and gravel, is placed in a trough; an empty soap-box is filled with scraps of old iron. This box is placed on a small truck, similar to a railway porter's truck on which he wheels passengers' luggage.

When the battery of artillery is supposed to come galloping over the plain, which the audience cannot see, a stage hand runs the truck bearing the box of old iron backwards and forwards at a rapid rate over the trough. The bricks in the trough, of course, make the truck bump, which causes the old iron in the soap-box to rattle in just the same way as heavy guns rattle in their limbers.

In another pantomime a building is blown up. This building is made of papier-mache, and when a few ropes are pulled behind the stage it comes crashing down at the very moment an explosion takes place, and volumes of smoke rise in a lurid glare. The explosion is due to a quantity of gunpowder, lycopodium, and sawdust ignited in an iron pot secreted in the building. The lurid glare is produced by the lycopodium and sawdust.

The thuds of falling beams and crashing timbers that accompany the demolition of this building are realistic enough. Dropped cannon balls furnish the thuds, while the tearing, crackling noise you have heard when a portion of the building is being rent is produced by a "crasher," a grooved cylinder working against slats of wood set in a frame. As the cylinder revolves its ridges catch the ends of the slats of wood, bend them, and let them go with a snap, causing a most realistic tearing sound.

All pantomime-goers are probably familiar with the "star-trap" and "vampire" acts. These features are not so common as they used to be, still they have not died out. A "vampire" is a trap-door in the floor of the stage, and the pantomimist, dressed, perhaps, as a demon, is bound across the stage and suddenly disappears through the folding doors. Below the "vampire" is a canvas sheet running down to the depths of the theatre. At the bottom of the sheet are soft pillows, in case the two attendants waiting at the sides of the sheet do not catch the performer in their arms as he descends. So soon as he is on his feet, the attendants push him on to a small wooden platform, which has four uprights, one at each corner, reaching to the stage. He stands bolt upright, with his arms pressed to his sides. The attendants withdraw a bolt, and the pantomimist shoots upwards like a flash of lightning, disappears through a portion of the stage cut in star sections, and bounds, in view of the audience, some six feet above the stage. As he descends he opens his legs in order to clear the "star," which shuts up automatically as he reaches the stage.

Visitors to the pantomimes have no doubt seen fairies slowly rise in a cloud of light from the back of the stage until they reach the flies. It may not be generally known that the girls are strapped upon a large movable scene, for the straps are so ingeniously covered with drapery that from the front of the stage the fairies appear to have no support whatever. As a rule, these scenes are very cumbersome, and often take thirty or forty scene-shifters to work them.

Transformation scenes are always troublesome to a stage-manager. A performer may jump the wrong way, as did a young lady in the provinces last Christmas. A scene had suddenly to be thrown into another, and for this purpose what is known as a "sink and rise" was employed. One of the actresses, intending to leave the stage, turned in the wrong direction, and stepped over the edge of the boarding where a portion of the scenery had just disappeared. She

fell a distance of twenty feet, and was seriously injured.

Live animals very rarely take part in pantomimes, and actors and actresses prefer to perform without the assistance of their four-footed friends, because the latter claim more attention from the audience than their histrionic merits deserve. Every pantomime usually has some animal in the cast, but this is generally a man or a couple of boys in a skin. In the few cases where real animals are employed their feet are covered with rubber to keep them from pounding the boards, and they are tied in a way to make them incapable of suddenly walking through the footlights and tumbling among the members of the orchestra.

Talking of animals, it is interesting to know that the sounds of horses' hoofs galloping in the distance are produced by a man playing upon a flagstone covered with felt, with a couple of blocks of hard wood shod with iron.

Snowstorms are not unknown to pantomimes. The representation of falling snow upon the stage is produced by small pieces of paper dropped slowly from a trough which runs across the stage above the scenery. If thunder is required a stage hand vigorously shakes a piece of sheet-iron hung at the wings or behind the scenes.

## Receipts for Currant Cookery.

### COLLEGE PUDDING.

Grate the crumbs of a twopenny loaf, shred eight ounces of suet, and mix with eight ounces of currants, one of citron chopped fine, a handful of sugar, half a nutmeg, three eggs beaten, yolk and white separately. Mix and make into size and shape of a goose-egg. Put half a pound of butter into a frying-pan; and when melted and quite hot, stew them gently in it over a stove. Turn them two or three times, till they are of a fine light brown. Mix a glass of brandy with the butter and serve with pudding sauce.

### CUMBERLAND PUDDING.

To make what is called the Duke of Cumberland's pudding, mix six ounces of grated bread, the same quantity of currants, the same of beef suet finely shred, the same of chopped apples, and also a lump of sugar. Add six eggs, half a grated nutmeg, a dust of salt, and the rind of a lemon minced as fine as possible; also a large spoonful each of citron, orange and lemon cut thin. Mix them thoroughly together, put the whole into a basin, cover it close with a floured cloth and boil it three hours. Serve it with pudding sauce.

### CHEESECAKES.

Strain the whey from the curd of two quarts of milk; when rather dry, crumble it through a coarse sieve. With six ounces of fresh butter, mix one ounce of blanched almonds, pounded, a little orange-flower-water, half a glass of sherry or port, a grated biscuit, four ounces of currants, some nutmeg and cinnamon in fine powder. Beat them up together with three eggs and half a pint of cream till quite light; then fill the pattipans three parts full. To make a plainer sort of cheesecake, turn three quarts of milk to curd; break it and drain off the whey. When quite dry, break it in a pan, with two ounces of butter, till perfectly smooth. Add a pint and a-half of thin cream or good milk, a little sugar, cinnamon and nutmeg, and three ounces of currants.

### CURD PUDDING.

Rub the curd of two gallons of milk well-drained through a sieve. Mix it with six eggs, a little cream, two spoonfuls of orange-flower-water, half a nutmeg, four and crumbs of bread each three spoonfuls, one pound of currants. Boil the pudding an hour in a thick, well-floured cloth.

### BREAD CAKE.

To make a common bread cake separate from the dough when making white bread as much as is sufficient for a quarter loaf, and knead well into it two ounces of butter, two of sugar, and eight of currants. Warm the butter in a teneupful of good milk. By adding another ounce of butter or sugar, or an egg or two, the cake may be improved, especially by putting in a teneupful of raw cream. It is best to bake it in a pan, rather than as a loaf, the outside being less hard.