

heaped on Cora. She found herself a rich heiress.

Mrs. Woodhouse's letter to her old pupil was full of love and tender sympathy. She said Winifred (now Mrs. Zillner) would be delighted to see her, and to share her home with Cora.

Hers was a large house, situated not far from the school, for both Herr Zillner and his wife still taught the young ladies as usual. Though they had married, their school duties went on the same as ever.

And so ere long Cora bade adieu to the "valley of Gastein"—not for ever, as she told the weeping Adelheid.

"I will come again, for there are two graves I shall sometimes like to visit, and I will always stay at your house if you have room for me."

The old woman's heart was made glad when she found that Cora would not remove the new things that had been bought for the rooms. Her piano was the only article she took to England, and with that she would not part, for she said,

"It was dear papa's own gift to me."

(To be continued.)

BOOKBINDING IN OLDEN TIMES.

THE bookbinding of the ancients was a very simple matter. The records of nations were kept in a variety of ways. In quite the earliest ages upon monuments, as, for instance, among the Chaldeans and Assyrians; later upon tablets; and at length upon less cumbersome materials.

In Egypt the ingenuity of the people suggested the use of a certain rush which grew in the swampy ground near the Nile. It is called the papyrus, and its botanical name is *Cyperus Antiquorum*; by modern Egyptians it is called Berd. It grows about ten feet high, and is crowned by a downy flower. To make it serviceable for writing purposes, the Egyptians cut off the two ends of the stalks, slit them and peeled them, then, laying many pieces thus prepared transversely one upon the other, they beat them flat with a mallet, and rubbed them over with a tooth or shell until the material was smooth enough for use. In order to preserve this manufactured paper it was dipped in cedar oil.

The Greeks used palm leaves, or strips of linen, for the purpose of memoranda, and at one time imported "papyri" from Egypt, until by an edict passed by Ptolemy Philadelphus, king of Egypt, the exportation of the plant was prohibited. This law was intended to annoy Eumenes of Pergamos, by preventing the increase of his library; but he proved that necessity is the mother of invention by discovering that sheep-skins properly dressed would serve every purpose. The material was named after him, and is identical with our modern parchment.

In Greece a kind of bark was also used, and in Italy we hear of the inner lining of lime trees being prepared for writing.

The earliest form of book, as far as can be ascertained, was the scroll. Many pages were joined together at one corner, and after a time a stick or root was employed upon which the leaves were rolled when the work was completed.

The origin of our word "book" is from the Danish *boek*, or beech bark, upon which writings were made in the northern countries,

whilst the word "volume" comes from the Latin *volumen*, literally "roll of parchment," and recalls the earliest form of book used by the Romans.

In ancient classics we read of writings upon leather or silk, but these were exceptional, and had nothing to do with books. The ink in general use was a kind of pigment prepared from lamp-black. This we learn from Pliny, and it agrees with the account given by Winckelman of the Herculanean MSS., in which the writing, if held up to the light, appears to stand out in slight relief.

The ancients used reeds for pens. They were called by the Romans "calami," and in a painting found at Herculaneum one of them is placed across an ink-pot, which in shape is not unlike those in use now.

In Roman books the page was divided into three columns, divided by a red line; the pages varied in width and length, and the title of the book was written at the beginning of the first page and the end of the last.

Usually only one side of the page was written upon, as in our MSS. for the press, and very often, for matters of slight moment parchment which had been used upon one side was employed.¹ This was more especially



THE PAPYRUS.

the case with children's books. When the contents of a book had for any reason lost their value, they were rubbed out, and the paper smoothed over and used again. It was then called palimpsest. Sponges were often attached to the books.

The outside sheet, which, when rolled, formed the back, was generally dyed yellow, with saffron, which served the double purpose of ornamenting and protecting the MSS. from maggots. When a book was finished, a stick or reed was fastened to the last strip, and the manuscript was rolled round it. In the MSS. dug up at Herculaneum the roller never projected beyond the leaves, but in the Roman scrolls the roller was hollow, to allow of the introduction of a smaller stick, the ends of which projecting were often richly ornamented with ivory, golden, or painted knobs.

For the preservation of the scrolls they were wrapped up in parchment covers, which were often beautifully dyed purple or yellow. The cover formed an envelope, known among the Romans as *membrana*, and called by the Greeks *διφθερα*.

The title of the book was written upon a narrow slip or strip of parchment, but it is impossible to say exactly where it was placed.

The cover of a book, or the complete book itself, was called by the Greeks *tomus*. The estimation in which everything relating to books was held by them is proved by the fact that they erected a monument to the memory of Phyllatius, who first discovered the best method of gluing the sheets of papyrus or parchment together.

In early Greek and Roman writings it became the fashion to paint the author's portrait upon the first page, and Pliny speaks of botanical books in which plants were copied.

The greatest care was taken of these scrolls. They were kept in cases made to hold one or more. A bookseller's shop in Rome contained a collection of scrolls more or less ornamented, in appearance not unlike our maps, and they were handed about to be read. The earliest form of the flat book, as we know it, was Roman. Leaves of lead were beaten smooth, and wooden leaves were covered with wax, and connected together by rings. Square books were made in imitation of tablets. Leaves of the finest vellum were selected for rare editions, and wealthy men began to order outer covers of ivory or carved wood. When once this was done, bookbinding became an art, and here its true history begins.

In the fourth century scrolls had gone out of fashion. At first the main object of the bookbinder was durability, and the earliest flat books were in coarse wooden covers secured by straps, but from them the transition to carved and elaborated covers and clasps was easy.

In the East, during the splendour of the Byzantine Empire, we find many accounts of the splendid books carried in the public processions. Bindings of red, blue, or yellow leather were ornamented with golden rolls or patterns.

The earliest bindings known belong to the sixth century, and are in what are called Byzantine coatings, which are either of gold, silver, or copper gilt.

In the elaboration of these books the binder's was the simplest part of the work. He had only to fasten the MS. into a leather or wooden back, and the ornamentation was left for the goldsmith or lapidary.

After the introduction of Christianity a favourite gift from a patron to a church or monastery was a richly bound and illuminated MS. The amount of skill and time bestowed upon a binding in those early days bore a strict relation to the contents of the books. Those of little value were simply preserved between wooden boards covered with pigskin, whilst illuminated or rare editions were profusely ornamented.

A binding of the seventh century is preserved in the cathedral of Monza. It was presented to the Basilica by Theolind, Queen of the Lombards, and is composed of gold plates, richly set with precious stones. There is a binding of the ninth century in the British Museum. It covers a copy of the Latin Gospels, and is a beautiful specimen. The plates covering the boards are silver, and upon the upper one is the figure of a saint in high relief. The corners of the book have square medallions of gold with black enamel, representing the four Evangelists.

In the library at Munich there is a cover to a copy of the Gospels, which is of gold set with pearls and precious stones. It was executed about 975 for Rannold, an Abbot in Ratisbon.

In the reign of Charlemagne the art of bookbinding made rapid strides. Italian designers and artificers were employed, and we read of the caskets in which books were preserved as being of solid gold and covered with precious stones. The clasps of the covers were often closely studded with jewels, and small gold nails were often scattered over the leather of which the cover was composed.