

Dioscorides, a student in botany and pharmacology, whose work was recognized as an authority as late as the seventeenth century. Dioscorides described 400 different plants. Galen was the first to secure the aroma of plants by distillation. His supremacy was maintained for 1,400 years. It is on record of him that he kept a drug store in Rome. He added half as many to the plants described by Dioscorides. Then came a period of decline. There were, however, three great men—*Buffus*, who discovered the function of the recurrent laryngeal nerve, and *Aurelianus* and *Leonidas*, who proposed isolation in contagious diseases, and who were denounced as brutes for this action. *Oribasius*, in the fourth century, was very active in pharmacy. Pope Gregory the Great, in the sixth century, proclaimed the school of homoeopathy, which, however, had prevailed in China several centuries before.

PHARMACY AMONG THE ARABIANS.

The Arabians did much to extend the practice of pharmacy, together with the separation of medicine and pharmacy, which was recognized as early as the eighth century. The Arabians held the practitioners of medicine in very high esteem. Mahomet himself had a fancy for the healing art, and there is reason for believing that numerous medical works were preserved by the Arabian physicians out of the destruction of the Alexandrian library. There were two great schools among the Arabians. Many drugs were imported from the East, and this gave birth to an army of dealers, physicians, who also practised pharmacy, and who were thus distinguished from the regular apothecaries. They existed in Italy as early as the eleventh century. It is also important to know that the separation of medicine and pharmacy was established by law among the Arabians as early as the eleventh century. The school at Salerno compelled its graduates to swear not to give or accept percentages on prescriptions. This school was founded in the seventh century, but subsequently fell under the control of the Arabs, after which their ideas as to the separation of medicine and pharmacy prevailed.

PHARMACY UNDER THE SARACENS.

It is beyond doubt that, prior to the twelfth century, there were drug stores in Cordova, Toledo, and other large towns, and that these establishments were under very severe restrictions. The material for the law passed in 1233, and which remained in force a long time, was drawn from these laws by Emperor Frederick II., of the two Sicilies. Under this law every physician was required to give information against any pharmacist who should sell bad drugs. Pharmacies were divided into two classes:—(1) The *stationarii*, who sold simple medicines and non-magistral preparations according to a tariff determined by competent authority; and (2) the *confectionarii*, whose business consisted in scrupulously dispensing the prescriptions of the medical men. All such

establishments were placed under the surveillance of the College of Medicine. Pharmacy was, to a great extent, under the control of the Arabian physicians during the Middle Ages. The religious orders, the Benedictines particularly, largely devoted themselves to pharmacy, pharmacology, and therapeutics. These monks were forbidden to shed blood, so surgery largely fell into the hands of the barbers. With the rise of alchemy, medicine, pharmacy, chemistry, toxicology, the grocery business, the confectionery business, and barbering became one combined trade. In Spain, under the auspices of the Saracens, pharmacy attained a status it never lost. So, also, in Italy. The development of pharmacy in Germany and England, however, took place somewhat later, so that the beginning of their pharmaceutical history is comparatively recent.

EARLY GERMAN DRUGGISTS.

The history in Germany begins in the thirteenth century. A drug store is found to have existed at Muenster in 1267, and one in Augsburg in 1285, and a third in Hildesheim in 1318. So the growth was very slow. The establishment at Hildesheim was originally the property of the church, but after 1385 was controlled by the city. That the boundary line of pharmacy and medicine was clearly defined at this period is shown by the existence of a parchment ordinance of the city of Nuremberg, 1350. This decree ordains that the druggist shall conscientiously fill all written and verbal orders on him according to his best ability; that he shall use none but pure drugs; that he shall treat rich and poor with equal courtesy; that he shall be modest in his charges, and not demand more than he needs to feed and clothe himself and those dependent upon him, allowing a reasonable advance in the cost of the drug as a compensation for his service.

THE GROCER-APOTHECARIES OF FRANCE AND ENGLAND.

In France and England grocers and spicers were early united with apothecaries. In 1345 King Edward of England gave a pension of six pence a day to an apothecary of London who took care of his majesty during his illness in Scotland. The separation of the apothecary and the physician must have been pretty complete about that time, and it is also pretty certain that the populace suspected both of giving and taking percentages on prescriptions. This is shown in the "Canterbury Tales," in which Chaucer says of his physician:—

Full ready had he apothecaries
To send him drugs and leetunaries,
For each of them made other to winne,
Their friendship was not new to begin.

The pictures of the old apothecaries still in existence are of considerable interest. One of them of a drug store of 1548 is vividly described by Shakespeare, fifty years later, in *Romeo and Juliet*—

I do remember an apothecary—
And hereabouts he dwells—which have I noted
In tatter'd weeds, with overwhelming brows

Calling of singles, meagre were his looks,
Sharp misery had worn him to the bones;
And in his needy shop a tortoise hung,
An alligator stuffed, and other skins
Of ill-shaped fishes; and about his shelves
A beggarly account of empty boxes,
Green earthen pots, bladders and musty seeds,
Remnants of packthread and old cakes of roses,
Were thinly scattered to make up a show.

THE OLDEST PICTURE OF A DRUG STORE.

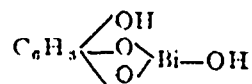
The oldest picture of a drug store is one of 1450. It looks like the warehouse of a creamery, with buckets full of butter piled shelf upon shelf, and might easily be taken for such a place were it not for the presence of the druggist preparing his drugs in a three-legged mortar. Another of 1505 shows the pharmacist, in all his official robes, designating to his assistant with his sword the drugs to be used. Another, of 1536, is still more pretentious. It is shown while it is undergoing the very rigid inspection provided by law.

The first trace of a pharmaceutical corporate body is found in Bruges, in Belgium, in 1297. It had a large hall, seals, statues, and a chapel. Divine services were held every day, and members sworn in. Its members were of distinguished families. It had the exclusive right to sell medicines, and soon became rich and powerful.—*American Druggist*.

Pyrogallate of Bismuth.

This compound has recently been introduced as an antiseptic medicine, and the striking feature of the body is that whilst pyrogallic acid is a virulent poison, the pyrogallate of bismuth appears to be non-toxic.

Voswinkel prepares the compound by dissolving separately 150 grammes of pyrogallol in 630 grammes of a 25 per cent. solution of common salt, and 316 grammes of bismuth trichloride in 1,000 grammes of the same solution. The two solutions so obtained are filtered, mixed, and warmed together for half an hour on the water bath. The product is then poured into twenty parts of water, whereby the basic salt is precipitated. After allowing to settle the liquor is filtered off, and the precipitate washed until the washings are free from chloride. According to Voswinkel, the product so obtained has the formula—



Vittorio prepares the salt by triturating in a porcelain capsule two parts of carbonate of bismuth and one part of pyrogallol with sufficient water to make a thin cream. The whole is then heated on the water bath, replacing the water, which evaporates as long as carbonic acid gas is evolved. The mass gradually becomes yellow. When the reaction is completed, the whole is thrown on to a filter and washed with warm water until the wash water is no longer colored violet on addition of lime water, after which the product is dried at a temperature not exceed-