

at 60° C. Tolu balsam contains about one per cent. of toluene and cinnamic and benzoic acids. It is often adulterated with turpentine or colophony, both of which can be detected by their being soluble in carbon bisulphide.

BALM OF MECCA OR GILEAD.—This balsam, whose virtues are much vaunted in the East, comes from a small tree known to botanists as *Amyris opobalsamum*. According to Perse, the only plantation now existing is in Arabia Petraea, and it only yields three pounds a year, which supply is always bespoken beforehand. Hence what comes over here in little gilt leaden bottles must be something different. The contents of these bottles are a whitish liquid of an agreeable penetrating odor, compounded of those of turpentine and essence of lemon. The taste is bitter, acrid and astringent. When fresh and good the balsam is liquid and floats on water. When a single drop falls on to water it spreads out and forms a film. This dries in a few minutes, and can then be lifted off like a bit of skin. The balsam turns yellow with age and loses its smell and transparency. When dropped on paper balm of Gilead does not make translucent spots.

CAMPHOR.—This comes from two trees, the *Laurus (Cinnamomum) camphora* of China and Japan, also known as *Camphora officinarum*, and *Dryobalanops camphora* of Borneo. The *Laurus camphora* attains a great age and size. Every part of the camphor tree contains camphor, which is extracted by boiling with water. The camphor is purified by sublimation, lime being first mixed with it to remove resin and oil, and, if necessary, iron filings to combine with any sulphur that may be present, and charcoal to destroy coloring matter. The sublimate is made into cakes by hydraulic pressure. Camphor is slightly soluble in water and readily in alcohol, ether, acetone, chloroform, benzole, glacial acetic acid and carbon bisulphide. It fuses at 175° C. (Borneo camphor at 189° C.) and boils at 205° C.

STORAX flows from a small tree called *Styrax officinale* or *Liquidambar orientale*, which grows in Syria and Cyprus. It is also extracted by boiling in water. Storax should be of a reddish color and have a soft and greasy feel and agreeable smell. Hard or dirty samples should be rejected. Tear storax approaches balsam of Peru, or rather vanilla, in its odor. Styrax is

liquid storax got by boiling the storax in copper vessels till the resins dissolve in the liquid part. Its specific gravity is 1.115, and it is partly dissolved by most of the ordinary solvents. Styrax contains 10 to 15 per cent. of styrol, the same quantity of cinnamic acid and also styracine; 65 per cent. of it should dissolve in 90 per cent. alcohol. If it will not sink in a solution of one pound of salt in eight pounds of water, it has probably been adulterated with turpentine. American storax, or white Peru balsam, is the product of *Liquidambar styraciflua*, which grows in Mexico and Louisiana. It is a clear, transparent, yellow kind of storax, lighter than water and acid in reaction. It contains 24 per cent. of styracin and one per cent. of benzoic acid.

MASTIC is a white transparent substance yielded by *Pistacia lentiscus*. It is indorous until rubbed.

CATECHU comes from the fruits of *Mimosa catechu*. There are three kinds of it: (1) A sort coming upon the market in dull reddish lumps weighing five ounces or so each. They are astringent, but are not bitter, being often rather sweet. This is the best kind, and is scarce. (2) Brown catechu. This is heavier and harder than the first sort, in smaller lumps (about three ounces each) and has an astringent, bitter taste. It is never sweet. (3) Lump catechu. This comes into commerce in lumps of about six ounces, wrapped in leaves. It has a dark tawny color and a bitter, astringent taste.

OPOPONAX comes from an umbelliferous plant. The names found in the books are *Pastinaca opoponax*, *Opoponax chironium* and *Opoponax persicum*. It is very little used. It must not be confounded with oil of opoponax, with which it has nothing to do. Its odor is like that of myrrh. It has a waxy lustre and forms a golden-yellow powder. In lumps it is usually reddish or brownish yellow. It is very bitter, and its odor is powerful and, in spite of its resemblance to that of myrrh, very characteristic.

OLIBANUM or **FRANKINCENSE** is yielded by three species of *Boswellia* (*B. serrata*, *B. thurifera*, and *Thurifera glabra*), a fair-sized tree. It comes from India and Somaliland. The juice of the tree is either exuded spontaneously or flows from cuts made in the trunk. Myrrh frankincense is the best. It has a specific gravity of 1.22, and occurs in oblong yellowish or reddish tears. The very finest

is nearly colorless, only having a slight greenish tint. Olibanum has a sharp aromatic smell and taste.

DRAGON'S BLOOD is the production of an East Indian tree. The names given in the books are *Dracaena draco*, *Calamus draco* and *Calamus rotang*. The juice is anti-scorbutic. The transparent tears give a dark red powder. The resin occurs more often in lumps than in tears.

MYRRH is the product of a small spring shrub, *Laurus (Balsamodendron) myrrha*, grown in Arabia and Abyssinia and at the southern end of the Red Sea. The resin exudes from cuts in the bark. It arrives here via India, and the first sorting takes place in Bombay. As it exudes the balsam is a yellowish-white substance of buttery consistence, but the transparent tears it first sets into reddish with age. It has a bitter taste and a powerful smell. The specific gravity of myrrh is from 1.12 to 1.2. A freshly broken surface exhibits an oily lustre, and perhaps veiny streaks. The inferior sorts have a dark color. Not more than six per cent. of the resin ought to dissolve in petroleum ether. The solution should be colorless. The commonest adulterants of myrrh are cherry and plum tree gum. *Commiphora schimperi* and *Commiphora abyssinica* are two other plants which yield myrrh.

A commercial on his first trip called upon a well-known chemist. He was nervous as he put his hand in his pocket and handed out a card.

"I represent that concern," said the young man.

"You are fortunate," replied the chemist.

The commercial was encouraged, and said:

"I think so, sir. And the chemist who trades with us is even more so. My firm has the finest line of cosmetics in the country."

"I shouldn't have thought it," slowly responded the man of medicines. "Her complexion looks natural."

And he handed back the photograph which the young man had given him by mistake. He took it, and left without waiting to make any farewell remarks.

Physician (giving advice)—"Lastly, McGorry, don't go to sleep on an empty stomach." McGorry (who is ailing)—"No danger av thot, docthor: Oi always slape on me back."—*Harper's Bazar*.