

AN ENGLISH LARD FACTORY.

We will take our readers on a tour through the extensive manufactory belonging to Messrs. Shaw, Phillips & Billings, situate on the banks of the Avon, about two miles from Bristol, England—the metropolis of the west. Messrs. Shaw, Phillips & Billings, own one of the oldest and most extensive soap manufactories in the kingdom, and although it is but eighteen months or so since they added to this the business of lard refining, they have, during that short period, imported the raw material from America at the rate of 1,000 tuns per annum, in addition to the supplies received from some of the home markets. Taking this 1,000 tuns as a basis for calculation, it would produce, say, about 700 tuns of the finest refined lard, in addition to about 250 of the lard oil, and certain refuse substances, which are turned to profitable account in the soap manufactory. Through the yard to the refinery we are accompanied by Mr. Phillips, one of the partners. The head is first knocked out of a tierce of the crude material, the produce of Indiana and neighboring States, where the renowned hog-slaughtering cities of Chicago and Cincinnati collect and distribute to all quarters of the globe pigs, pork, lark, and bladders. The lard used by Messrs. Shaw, Phillips & Billings is imported in tierces and barrels from New York, the supply to that market from the pork-packing neighborhoods having been very plentiful of late, on account of the great increase in the crops of Indian corn, upon which the pigs are mostly fed.

HOW LARD OIL IS MADE.

But let us commence operations. Woolen bags, close grained and manufactured for the purpose, are filled with the crude lard, taken from the tierce which has been opened for our inspection. A series of these bags are placed between the plates of immense hydraulic presses, where they remain about eighteen hours, under a pressure of from 100 to 150 tuns. By this means the lard oil is expressed in so pure a state that if a drop be taken on the tip of the finger, and held up to the light, it glistens like a diamond. The oil as it is pressed out is caught in a reservoir below, and from this it drains through a pipe into an immense cistern beneath the floor. Having once ascertained this interesting fact, the desire to "pass on" became stronger and stronger as the thoughts of the possibility of dropping through the rickety boards into the oily lake became more prominent to our mental vision. We wait, however, while a small phial is filled with a sample of the oil, which our guide considers it incumbent upon us to taste, in order to realize fully its good qualities as a lubricating agent. We next inspect the contents of one of the bags which has already undergone the necessary pressure, and find that it has not only assumed a more solid form, but has improved in color. Mr. Phillips having cut from the cake of compressed lard a square piece to carry with him for the purpose of comparison, we again join him in the enjoyment (?) of another little relish, and proceed on our way, marshalled by our guide, who carries like a trophy on the point of a stout jack-knife the snowy specimen.

Before finally quitting this department we are desirous of ascertaining what becomes of the oil which we have already seen dripping into the underground reservoir. A force pump raises it into pipes, through which it is conducted into a refining tank, and thence into a series of immense iron cisterns enclosed in a dark cavern-like chamber, heated with steam flues, and kept winter and summer, day and night, at an even temperature. One of these tanks holds twelve tuns of oil, and the others about five tuns each. The contents after remaining under the influence of the regulated temperature, without being disturbed, for a certain time, are freed from any impurities that may remain before being sent on to the market.

HOW THE CAKES ARE REDUCED TO LARD.

When all the oil that it is possible to extract from the lard has been expressed, the remaining cakes are taken from the woolen cloths and thrown into a cistern, where they are liquified at a temperature of 150°, and transferred from this by means of pipes to the room which we shall now describe. In the center is a range of immense pans, each heated by a steam chamber, reaching about half way up the outside. Over each pan is a tap, from which supplies of the liquid lard are drawn. The pans thus filled,

and the necessary clarifying agents added, all is simmered together for six hours, at a heat of 210°. The impurities, with the clarifying agents, come to the surface in the form of a rough brown mass; and if, good reader, you were to mount the brick wall and look into one of the coppers under the idea that you might see lard, you would be disappointed, unless, as in the case with us, some kind friend with a long stick were to probe the mass and extract a specimen from beneath. This, however, is not the usual means taken to release the pure material from the dross; it is drawn off in large tin vessels by means of taps placed near the bottom of each boiler.

HOW THE LARD IS SOLIDIFIED.

Two large coppers, built on the floor at either end of the room, are filled with the liquid as we have just seen it. An air-pipe, two inches in diameter, enters the mass right in the center, and keeps the lard in a state of incessant agitation until it begins to congeal, the process generally occupying about two hours. The air, permeating through every particle of the mass, renders it impalpably smooth and increases its whiteness. While still in a semi-liquid state, the copper is surrounded by men and boys. One lad hands up the bladder ready for filling; the stem of a funnel is inserted in the neck of the same; and before you can say "presto," it assumes that rotundity and snowy baldness so familiar to us all. The bladder is tied while floating in a tub of lukewarm water, and then popped, with extraordinary agility, by another boy into a vessel containing cold water, where a short time suffices to harden it. All around this apartment are ranged wide shelves groaning under the weight of the plump, chaste, though irregular-shaped balls. An immense stack of neat little kegs of the usual size, filled and fastened down ready for transmission to our retail provision stores, occupy one side of the apartment, and beside them a range of tins all filled in the same manner, but uncovered. The kegs, we are informed, are made in Liverpool, a town long celebrated for its coopers. Though Bristol can boast of many such craftsmen, it seems that lard and other small kegs cannot be made there at prices that will compete with the Liverpool terms, although carriage has to be paid from the latter place.

CONCERNING THE BLADDER DEPARTMENT.

It is truly refreshing to leave behind us the warm oily atmosphere of the clarifying-room for that or another large apartment, well ventilated with lattice work on each of its broad sides. Let the reader now imagine an enormous overgrown sideboard of the whitest deal, on the broad shelves of which are ranged, waiting for dispatch, more ready filled bladders. Looking up, we begin to think we have wandered into the abode of an itinerant vendor of children's farthing balloons, which are suspended in bundles, and sway to and fro in the breeze. We are informed, however, that these are the lard bladders undergoing the necessary preparation to render them fit for commercial purposes. The manager of this particular department now undertakes to put us through the mysteries of bladderology. A very communicative and obliging person is our new guide. He shows us countless barrels of bladders in pickle—grizzly uninteresting-looking things—as they come from the United States. Each barrel is marked with the number it contains, which is almost invariably either 2,000 or 2,300. The head of an empty barrel placed under what we would at first glance judge to be a wine merchant's bottling tap, serves as a work-table for the operator. The bladders, softened to the proper consistency, are distended by a supply of air from this tap, which has proved a wonderful saving to the lungs of the manager and his subordinates. It appears that in all establishments of this kind the bladders, in order to be trimmed and bleached, are blown up by the workmen. The effect of the constant expulsion of wind on the operators is sometimes of a serious character, and workmen are frequently obliged to remain at home for a week or two to "gather wind." It occurred, however, to a member of this firm, that by means of a tap they could make use of the compressed air already forced by steam power into the pipes, for purposes which we described, to fill the bladders also. This simple idea has been adopted, and with such good effect that, while much time and intoxication are saved, the bladders are more perfectly blown, and are, in con-

sequence, easier to trim. Our instructor submits one or two sample bladders to the action of the air-tap, by which we are able to judge that calves' bladders, more than any others, are fond of assuming contorted forms when filled. Pigs' bladders are the largest produced, and run in more uniform sizes than others. We were shown some capable of containing 60 lbs. of lard. Bullocks' bladders are more shapely than any others, and on an average will contain 25 lbs.; but in all cases, the smaller the bladder the better for the preservation of the contents; hence small bladders, when filled, command a higher price in the market than large ones.

Imperial Tokay.

Tokay wine is much esteemed by wine drinkers, but as its high price excludes it from general use the following notice from the *Moniteur Vinicole* may not be uninteresting:—

"The village of Tokay which gives its name to the wine is situated in Hungary, on the top of a hill near the meeting of the Rodrog with the Theiss. The vineyards are to the west of Rodrog, and they occupy a space of ten square miles. The earth is of yellow chalk mixed with large pebbles. The wine is white, and the vintage is commenced as late in the year as possible, but generally at the end of October. There are four different kinds of Tokay. The first is made by placing the grapes when cleared of all rotten fruit in a wooden vat, with a double bottom, of which the one on which the grapes rest is pierced with small poles. The vat is filled with grapes and covered with boards. After a few hours the grapes become heated to 80° Fah., and fermentation sets in. The fermentation destroys the tartaric acid, and the weight of the grapes forces the juice through the holes in the bottom. The grapes are then trodden under foot, and the wine is poured into small casks, where it remains exposed to the air a month after having fermented for two days. This is the wine which is generally exported. When of a good quality it has a silvery, oily color, the taste sweet and mellow, with a peculiar earthy flavor, slightly astringent and aromatic, with good body. This wine may be preserved for an almost indefinite period, but is not drinkable until it is three years old. The ordinary price of Tokay wine of first quality purchased at the vineyard is from 5s. to 6s. the bottle. The Emperor of Russia keeps a commission agent at Tokay who purchases 40 or 50 casks of the best wine every year. Some vine-growers in the Arriege cultivate vineyards on the tops of the highest mountains in calcareous earth covered with stones similar to those found in the vineyards near Tokay, but they have not as yet succeeded in producing anything as good as the Hungarian wine."

To Keep Tires on Wheels.

A practical man says on this subject:—"I ironed a wagon some years ago for my own use, and before putting on the tires I filled the fellies with linseed oil; and the tires have worn out and were never loose. I ironed a buggy for my own use seven years ago, and the tires are as tight now as when they were put on. My method of filling the fellies with oil is as follows: I use a long cast-iron oil heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick so as to hang in the oil each felly an hour for a common sized felly. The timber should be dry, as wet timber will not take oil. Care should be taken that the oil be not made hotter than boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused some years ago when I told a blacksmith how to keep tires tight on wheels, by telling me it was a profitable business to tighten tires, and the wagon-maker will say it is profitable to make and repair wheels—but what will the farmer, who supports the wheelwright and smith, say?"

CARE OF DAHLIA ROOTS.—The roots should be dug up as soon as the first hard frost has spoiled their foliage. Cut the stem about six inches above the tubers; then lay them up to dry. After they have become dry, pack them in the cellar, there to remain until they begin to grow in the spring; then plant them out in the borders, previously dividing the roots if an increase is required.