the cave which contain natural imitations of the badges of other secret organizations. We are now walking along the path known as the Turtle Pass, on account of a block of stone beside it which has been worn into the shape of a great sea turtle with head erect, and we soon arrive at the cross roads, the point from which the routes leading to several parts of the great cave diverge. Our objective point is the Fair Grounds and we keep on to the left, passing through Sumner Avenue and Dewey's Palace to the Kimbal Music Hall, where we halt to give the guide opportunity to prove to us the musical properties of several plates of rock in the side of the room by striking them so as to produce some of the tones of the scale. Descending through Whitney Avenue we find ourselves in Monte Cristo's Palace, said to be 450 feet below the mouth of the cave, a beautiful room the walls of which glisten as if coated with gems, so bright are the reflections from the facets of numberless crystals. Climbing on down to the eighth tier or level we traverse in succession the Assembly Room, the Tennis Court and the Marble Quarries before we reach Johnstone's Camp Ground, which is the room the mind-reader Johnstone used as his headquarters during the three days and nights which he spent in the cavern while hunting blindfolded through its winding passage ways for a pin, a search which was finally successful. After seeing the parlor, we squeeze through the narrow portal called the Ticket Office and reach the "Fair Grounds" which is a comparatively barren room said, with its branches, to cover an area of not less than three acres. This is the end of our route and we turn back in regret, traversing once more the rooms through which we have come and arriving again at the entrance after three hours of delightful existence in the cool, pure, bracing atmosphere of the cavern which has enabled us to walk several miles and take much unusual exercise without fatigue. One member of our party was a farmer seventy-eight years old who had come from his home near St. Joseph, Mo., for the purpose of making the tour of the region about the Hot Springs.

According to Mr. Stabler's observations the uniform temperature of the atmosphere of the cave is 45° F., winter and summer, a value which accords very closely with the mean annual temperature of the region. The cave seems to be barren of life, and there is practically no water for its support.

CATTLEYA × MAGGIE RAPHAEL (DOWIANA AUREA, LABIATA TRIANÆI).

THERE is a special interest about this fine hybrid, which we here illustrate, raised by H. S. Leon, Esq., Blethley Park, Blethley, and shown at the Royal Horticultural Society. As it is not only a very fine and distinct hybrid, but it also serves to check an error in a previous record, viz., *Cattleya* × *Massiliensis*, which was said to be of the same parentage as the one now under notice, though the matter was always considered more than doubtful on account of its exhibiting so little trace either of the yellow color or the form of *C. Dowiana aurea*. *C. × Maggie Raphael* has the yellow color of *C. Dowiana aurea*, with the addition of a bronzy-rose tint toward the edges of the petals, and a number of purple spots along the veining on each side of the mid rib. The lip is of a rich purple color, lighter toward the margin and apex, and with some yellow lines running from the base to the center. It is a very distinct and beautiful flower.—*The Gardeners' Chronicle*.

THE POLITICAL ORGANIZATION OF THE FILIPINOS.

By R. L. PACKARD.

THE following article is taken from a study of the village organization, as it existed in the Philippine archipelago before the advent of the Spaniards, and as modified by Spanish policy, by Prof. Blumentritt, the German ethnologist whose works upon the Philippines are well known to scholars. The wisdom and adroitness of the Spaniards in adapting the ancient conditions to their own needs will be apparent. Doubtless most Americans will be surprised to learn that the Filipinos have such a complete political organization as to elect their officers, which they were accustomed to do before the United States came into existence as a nation.* Prof. Blumentritt's paper is based upon early Spanish accounts of the natives and modern observations, and was written about twenty years ago.

When the Spaniards under Legazpi arrived in the Philippines in 1565, they found no united or strong state but the archipelago was divided into innumerable small governments, each of which consisted of only one community, or village. But wherever Islam had taken root, as in Mindanao, Sulu, and the Bay of Manila, these governments were larger, that of the sultan of Manila extending along the shores of the bay, while the domain of King Lacondala, of Tondo, comprised in a large arc of a circle the properties of the Sultan of Manila, and also extended northward into the province of Pampanga. In the present province of Bulacan there were three sultans, vassals of Lacondala, who were descendants of the Malays of Borneo and Negrito women; all the rest of Luzon and the Bisayas were parceled out among the little governments mentioned above. In Sulu and Mindanao there were also large sultantries.

These pagan governments were called barangays or balangays, and there are to-day certain vessels of this name in the Bisayas and Mindanao, from which circumstance it has been suggested that the inhabitants of each barangay community were the descendants of the crew of the barangay boat in which the Malay ancestors had reached the Philippines. The barangays were not large, many comprising only a hundred individuals. Their chiefs were called dattos in the south and manguinos in the north. The dignity of datto was hereditary in certain barangays; in others, particularly in the north of Luzon, wealth and warlike exploits gave that sovereign dignity to the most important persons. In communities where the government was hereditary, primogeniture regulated the succession to the throne. If there was no son, the title of datto passed to the daughters, and in the absence of daughters

the nearest relatives of the defunct prince assumed the government.

The population of each barangay was generally divided into seven castes, viz., the family of the datto; the free men, or petty nobility; the freedmen, the vassals and clients of the dattos, the serfs, the demi-slaves, and the complete slaves.* The Spanish dominion promptly put an end to all these distinctions. The numerous small colonial states were first suppressed partly to facilitate administration and destroy the power of the dattos, and partly in order to assist the religious conquest, as the Spaniards called it, whose proselyting efforts were hampered by the lack of priests. Consequently the inhabitants of several barangays were compelled to unite into one common village or pueblo, but the members of the different barangays soon gathered themselves together in the new community so that this became divided into quarters which took the old name of barangays. But through the able measures of the Spanish government, the memory of a common origin and of political independence gradually died out among the members of the barangays. In order not to render the dattos hostile to the new state of things, their original dignity was left them with the Hispano-Filipino title of cabeza de barangay, or barangay chief, although their influence in the new pueblo was already considerably lessened by mutual rivalries. But their previous rights were reduced to a minimum, all executive power was taken from them in exchange for which they were charged with collecting the personal tax or tribute of the Spaniards, for which they were held responsible although they were themselves exempt. Thus the interests of the Spanish government and of the ex-dattos coincided. Besides, in order to accustom them better to their new situation, a number of honorary distinctions were accorded them, among others the title of don. The dignity of cabeza de barangay was hereditary or elective, according as the corresponding barangay had followed one or the other custom in old times, for it was the Spanish policy to leave the national organization intact as far as possible. At the head of each of the new communities was placed a chief or mayor with the title of gobernadorcillo or capitan, who was chosen for a certain period by the cabezas de barangay and, naturally, from among their own num-

CATTLEYA × MAGGIE RAPHAEL.

ber. These latter also formed the municipal council, and filled the places of the different communal functionaries who will be specified later on. This measure effaced the difference between the various barangays which then became mere fiscal units, while their former dattos governed every barangay of the pueblo in virtue of their authority as gobernadorcillos. Just as the cabeza de barangay was responsible for the tribute of his quarter, so the gobernadorcillo was made responsible for the tranquility of his village and its tribute as well as the performance of the annual personal labor required by Spanish law. The election of the gobernadorcillo had to be ratified by the Spanish Governor-General and could only take place in the presence of a Spanish functionary or curé, or at any rate some Spaniard or other. Thus the gobernadorcillo was the ancient datto or manguinoos, and to this day the Tagals call the gobernadorcillo "manguino."

In order to destroy completely the power and influence of the ex-dattos, the Spaniards suppressed the different classes of serfs and slaves whose interest it was expected would therefore, attach them to the Spanish dominion. All natives, except the families of ex-dattos and perhaps also the mahaldias or petty nobility, were called upon every year to perform a certain amount of public labor for the Spanish government, such as work upon roads, bridges, etc.

As is easy to see the new communal organization is hardly to be distinguished from that of the ancient clan which existed during the time of independence. The power of the ex-dattos had certainly diminished after the Spanish conquest, but every clan still remained undivided in its barangay, and its former chief still remained separated from his former subjects by a profound social abyss and still inspired them with great respect. If the Spaniards had been forced to leave the Philippines a few decades after the conquest the villages or pueblos would have split up and the ancient class or barangays would have revived with their former chiefs, because the inhabitants of a pueblo

* This aristocratic social condition antedates any tradition and is accounted for by a creation myth which resembles those animal myths found in various parts of the world, among the American Indians for example, in which men and animals are on the same footing. It tells how men were originally separated into classes by the first pair.

did not regard themselves as members of a single community but each clan formed a community apart which only united externally with the other clans or barangays.

The Spanish government started from the principle that the barangay was a fiscal unit, and decreed that each barangay should consist of not more than from 50 to 100 families paying the tribute. Thus the development of the villages or pueblos increased the number of barangays each of which was placed, naturally, under a cabeza de barangay. The dignity of this chief was no longer hereditary in the new barangays nor did it any longer pertain to the families of dattos, but any rich man whose ancestor had, perhaps, been a slave at the time of the conquest, might acquire it. As the new cabeza shared with the old the privileges of exemption from the tribute of having the title "don," etc., and as these privileges were transmitted to the eldest son, a new nobility of functionaries thus came into being which was at first inferior to the old in consideration but which soon became confounded with it exactly as happened to the patricians and nobility in Rome at the time of the Gracchi. The old and the new nobility became merged because the families of the ex-dattos and the new nobility had the same interests, especially in the election of municipal functionaries. The members of this nobility were called principales by the Spaniards. In 1570 the Spaniards introduced the first direct or poll tax in Mindanao and soon after extended it to the entire archipelago. This poll tax was called tributo by the Spaniards and amounted to 8 silver reals (about 88 cents) per couple of individuals, i. e. for a man and wife, each individual being therefore taxed 4 reals (or 44 cents). The former was called the tributo entero or whole tax and is what is usually meant in Spanish works when the term tributo is used. Children under sixteen and adults over sixty were exempt from this tax. The formation of new regiments in 1590 compelled the Governor-General of the time to raise the tributo to 10 reals, which was payable in kind, rice, wax, gold dust, etc. To this must be added 1 real as a land tax or dues to the church which was called the sanctorum, and a municipal tax called the caja de comunidad. The total tax for a couple in modern times is 15 pesetas (about \$3.00) of which a portion are the municipal and sanctorum taxes, the real tribute being only the remainder after deducting those, but when the term tributo entero is used it includes the total without distinction. The Chinese and their half bloods pay a higher tax than the natives; the whites and their descendants generally pay no tributo, nor do soldiers who have served a certain number of years, nor natives who have rendered distinguished services in improvements in agriculture and industry nor the descendants of the Christian princes of Cebu. [Nor the cabezas de barangay. See above.] The caja de comunidad pays the school expenses, the salaries of the teachers, the vaccinators, jailers and clerks and also pays for keeping the public buildings in repair. The food of the prisoners in the jails is also paid for out of this tax.

The sanctorum is the salary of the curé who receives 180 pesos (about \$180) for every 500 couples who pay the whole tax in his parish, a circumstance which makes the all-powerful influence of the clergy serve the interest of the royal treasury. The curé acts as a controller to prevent any cheating in the payment of the tributo. This tax is levied by each cabeza de barangay which usually consists of 50 taxable units or 100 individuals subject to taxation. Insolvents are required to pay in kind or work out their taxes and are employed in the large towns in sweeping the streets and in similar work, but this latter rarely happens notwithstanding the laziness of the natives. The gobernadorcillos and cabezas retain 2 per cent. of the taxes received.

Besides these taxes, the natives are required to do forty days public service a year, working on bridges and roads, and in carrying the baggage of white travelers. The natives are also night watchmen and mail carriers. The principales and native officials are exempt from personal service. Anyone can purchase exemption from this service by paying 15 pesetas (\$3) into the municipal treasury.

The autonomous village is called a pueblo. One which has not yet attained autonomy but forms one community with a pueblo is called a barrio, visita, or anejo. Each village has a public edifice like the rathhaus in Germany, which is called the tribunal, in which are held the sessions of the municipal council and of the gobernadorcillo's court. This building also serves as a public station when there is no prison in the village. If the government employs in the capital of a province have their offices in the tribunal, the building then takes the name of the casa real, the literal meaning of which is royal house or king's house.

The village dignitaries are the gobernadorcillo, whose functions are something like those of a French maire, and who is generally called capitan. He has a principal lieutenant, two sub-lieutenants, several officials with the title of judge, who attend to suits or differences about agriculture and cattle, and try police disputes, and, finally, the alguazils, who are captains or officers of the police force. These offices are all elective. Each visita also has its lieutenant, judge, and alguazil. Before describing the rights and duties of these magistrates, it is desirable to give some further details of the present functions of the cabezas de barangay and their privileges.

The division into barangays is always in force, fifty families forming a barangay, at the head of which is a cabeza or chief, as has already been said. When the position is not hereditary, the cabezas are elected, and almost always from among the principales. Usually, at the expiration of his functions, the cabeza is re-elected. If he resigns, his son is usually chosen to fill his place, so that the function is virtually hereditary.

The term of service is from one to three years in different provinces. Besides collecting the taxes and superintending the performance of personal services the cabeza is responsible for the public peace in his barangay and settles disputes in matters concerning the village.

The cabezas are, as has been said, exempt from taxes and personal service. They have the title of "don," which raises a native, in the view of his countrymen, to the rank of gentleman. These privileges extend to the wife of the cabeza, to his eldest son, and to his eldest adopted son if he has no children.

Noble native families, dating from the conquest and descendants of the ancient dattos, enjoy these privileges as a matter of course, without restrictions, and without the condition of performing the duties of a cabeza. The novus homo who is elected cabeza preserves the title of don even after leaving office, and is numbered thenceforward among the principales.

In order to be eligible to the important position of gobernadorcillo the candidate must be an "Indian," that is to say, a Malay native or Chinese métis (i. e., son of Chinese father and Malay mother), he must be 25 years old, must know how to read and write, and must have filled the office of lieutenant or cabeza de barangay, and the taxes of his barangay must not be in arrears. For these reasons the office is monopolized by the principales. The gobernadorcillo is elected for one year, and the election takes place in the following manner.

The electors are the gobernadorcillo who is about to resign, six cabezas de barangay, and six ex-gobernadorcillos who have been cabezas de barangay, making thirteen voters, who are all, it will be noted, principales or nobles. None of these electors is the subordinate of any royal functionary or of the curé, but the president of the electoral board must be a Spaniard—the governor of the province or his substitute if possible. The curé of the village has the right, although it is not his duty, to attend the election, which must be held in a public building, such as the tribunal or a school, and not in a private house nor in the parsonage. The thirteen electors choose two candidates, to whom the outgoing gobernadorcillo is added. The president makes a report of the election, which is signed by all the electors, the curé and the clerk, in which he indicates which of the two candidates he considers best suited to the position, and this report together with all the documents bearing on the election are sent to the governor-general at Manila. The candidate presented in this way is nearly always appointed by the government. In the Bisayas the provincial governors are delegates of the general government on this occasion and confirm the election themselves.*

The badge or staff of office of the gobernadorcillo is a gold headed cane with a silk tassel, which he always carries and does not lay aside even while at meals.

Besides his qualities as political head of the pueblo—and as such responsible for troubles with the government—and director of its commercial affairs, the gobernadorcillo is also a judge, taking original cognizance of cases not exceeding 25 pesos. He also makes the first investigations in criminal cases and hands his report, together with the criminal, over to the Spanish authorities. It is one of his functions, too, to see that the people of his village attend to their religious duties, principally the rites of baptism and marriage. His means of coercion are usually the rod and imprisonment, which are also the means employed by the judges in enforcing their decisions. If the village is a port and is not the residence of a Spanish governor, the gobernadorcillo is also the captain of the port.

His position, in the eyes of the natives, is rather a distinguished one. He is always accompanied by an escort composed of his lieutenants, clerks and others, while if he goes far from the suburbs he is escorted by the national guard, and he has a place of honor in church.

The election of the lieutenants and judges takes place in the same way as that of the gobernadorcillo except that no approval from Manila is necessary. Only those who have held the position of gobernadorcillo can be superior judges. The alguazil, mayor, or chief of police, has charge of the principal police station and watch houses. He also provides European travelers with escorts.

There is no session of the municipal council in the sense in which we understand the term. The administration and direction of the village are entirely in the hands of the principales and as they are controlled by the curé it follows that all the threads of the municipality are held by him, provided, that is, that he be Spanish, for the colored ecclesiastics have little consideration.

There is a sort of national guard or militia called cuadrilleros for preserving the public peace and protecting the people against pirates, bandits, and the wild tribes. They are undisciplined and poorly armed.

Newspapers in Russia.—Consul Smith sends from Moscow, April 14, 1900, the following data as to publications in Russia:

Periodical journals and newspapers issued	
in the Russian language.....	631
In the Polish language.....	65
In the German language.....	42
In the Estonian language.....	11
In the French language.....	8
In the Latin language.....	9
In the Armenian language.....	6
In the Hebrew language.....	2
In the Caucasian language.....	5
Total.....	779

Uruguayan Trade in 1899.—Minister Finch, of Monte video, under date of April 9, 1900, sends a statement of the trade of Uruguay in 1899, from which it appears that the total imports were \$25,551,788, against \$24,784,360 in 1898; and the exports, \$62,125,952, against \$55,061,376 in the preceding year. The chief increases in the imports were in raw materials, machinery, and "soft goods;" in the exports, gains were noted in slaughterhouse products.

*The German savant Jagor witnessed an election on the island of Samar. His account differs slightly from the above and is as follows: He says (Reisen in den Philippinen): The election took place in the communal hall (tribunal). The representative of the Spanish governor sat at the head of the table as president, with the curé on his right and the clerk, who was also interpreter, on his left. All the cabezas de barangay of the village, the outgoing and the ex-gobernadorcillos then took their seats. Six cabezas and as many ex-gobernadorcillos were first chosen by lot to serve as electors, the outgoing incumbent making the thirteenth. All but the electors then left the room. After the president had read the election law and cautioned the electors to perform their duties conscientiously, the latter advanced to the table, one after the other, and wrote the names of three candidates upon a ticket. The candidate who has the greatest number of these votes is thereby elected gobernadorcillo for the ensuing year, unless the curé or some elector objects, the election being subject to confirmation at Manila. This confirmation rarely fails, because the curé would prevent an unsatisfactory choice. The other officers are elected in the same way. Everything was done with decorum.

TRADE NOTES AND RECEIPTS.

Sealing Wax with Wick.—In an earthen vessel melt at moderate heat:

Venetian turpentine..... 30 ounces.
to which add
Shellac..... 1 pound 29 "

stirring with a wooden stick, until same has also melted. Meanwhile grind:

Genuine Bologna chalk..... 6 ounces.
Magnesia..... 6 "
Vermillion..... 1 pound 12 "

into a very fine powder and introduce this into the mass. After the mass has been thoroughly mixed, pour in:

Turpentine..... 7 ounces.
Mastic dissolved in turpentine..... 3 "
Peruvian balsam..... 3 "

Heat again and mix well, whereupon the finished sealing wax can be poured into moulds.

The wick consists of 6 to 10 cotton threads, which are saturated with wax or stearine. The wicks thus prepared are stretched in specially made moulds, whose open part is provided with a funnel, through which the sealing wax mass is poured in.

The wick itself is stretched firmly.

For blue, fine ultramarine blue is used, for yellow finely prepared perfectly anhydrous chrome yellow, for black, very finely prepared ivory black.—Oel- und Fett-handel.

Preparations for Washing Cattle, Etc.—With the different methods of washing cattle which are conducted by farmers in spring or autumn, currying is considered an important factor. The parasites are known to be chiefly lodged in the cutaneous scale and hair tangles. By the currying the same are torn open and are rendered more accessible to the washes. It is a fact that in the case of well kept cattle, the vermin are more easily removed than in the case of animals which are in a poor condition owing to bad food, want of care, etc. Therefore, according to the conditions of the case, the washing has to be performed once or twice.

Among the many preparations which are used for the extermination of skin parasites, such as essences, powders, benzine, petroleum, insect powder, creolin, etc., I can recommend, says a writer in the Pharmaceutische Zeitung, especially the last named if the treatment is carried out exactly as follows: The cows to be washed are thoroughly rubbed with a wisp of straw so that the scale, tangles, and dirt, are loosened. This done, currying diligently. Now the beasts are well washed with a warm 7 to 10 per cent. creolin solution, and subsequently brushed with a hard brush, always against the growth of the hair. A warm solution is preferable, to protect the cattle from taking cold. Draughts should also be avoided. Immediately after the washing, the stable should be thoroughly cleaned and scoured with creolin.

Another method of scouring cattle consists in mixing ordinary soft soap with creolin (strength 10 per cent.) lathering the animals with this, and washing off after a while with warm water.

For the extermination of parasites is always well suited tobacco leaves in the form of a strong extractor, better, as follows: Extract by boiling tobacco leaves 800 in 8 liters of hot water about three-quarters of an hour, remove the leaves, and after cooling, add Spir. Saponat. 500, and Spir. denaturat. 300.

The use of this liquid is the same as stated for the creolin wash. Especially for horse lice, a salve consisting of Ungt. Hydrarg. ciner. 200 Ol. animal. foetid. 300, and Sapo virid. 350 is employed with good success. The horses are rubbed with this salve and tied close to the halter, so that they cannot lick themselves. Afterward wash off with warm water or preferably with weak soap lye. I would, however, recommend the former methods with creolin or tobacco in such cases where the vermin are very plentiful, as they are more thorough, and horse lice are known to possess a tougher life than their relatives.

Somewhat more laborious for the layman is the employment of washing powder, which, if profusely used, is productive of good results, but in my opinion is not so energetic in its action as the first mentioned method. As good washing powders for cattle, etc., I would recommend the following: I. Sem. Sabadill. 125. Lign. Quassiae pulv. 250, Asafoetid. pulv. 25. Ol. Animal. foetid. 10. M. f. pulv.—S. The powder is boiled about one-half hour in 8 liters of weak vinegar, and subsequently made to acquire its original weight. II. Sem. Staphid. agr., Sem. Sabadill. Sem. Colocynthis. aa 120, Sapon. pulv. 400. M. f. pulv.—S. This powder is boiled for one-half hour in 20 liters of water to which 1 liter of vinegar was added, the loss in boiling is replaced with water, and afterward two tablespoonfuls of pine oil are added.

The veterinary surgeons besides employ arsenic and mercurous oxide in the wash. I believe, however, that the place of these strongly acting materials can be taken by creolin. Though not absolutely necessary, it is advisable to sprinkle the animals after the wash with insect powder or one of the following powders: I. Pulv. Pyrethe. 200, Sacch. lactis 100, Boracis 40. II. Lign. Quassiae pulv. 100, Sem. Colocynthis. 20, Boracis 50, Sacch. lactis. pulv. 40, Flor. chrysanthem. pulv. 200.

The Seifensieder Zeitung gives the following recipe for a soap for the same purpose: Melt cocoa oil 5 kilogrammes, and beef tallow, 5 kilogrammes; let cool to 25° C., and add with constant stirring; crude carbolic acid (100 per cent.) 1 kilogramme, ammonium carbonate (hartshorn salt) coarsely powdered 0.5 kilogramme, soda lye (28° Bë.) 4.5 kilogrammes, and as soon as the mixture is uniform, 1 kilogramme of water.

Stir until the different parts of the mixture can no longer be recognized, and place as quickly as possible in wooden boxes lined with wet parchment paper, which are then covered up. All loss of time should be avoided, because the addition of water immediately causes formation of soap with spontaneous calefaction, whereby the soap becomes hard. Leave the boxes stand in the warm for three days, then cut the ready soap into pieces of equal size, let dry in the air and wrap up in tin foil.

This soap is excellent for washing animals to remove parasites, and is also adapted for disinfecting toilets.

SELECTED FORMULÆ.

Egg Lemonade.

1. Break one egg in a soda glass, add 1¼ ounces of lemon sirup, a drachm of lemon juice and a little shaved ice; then draw carbonated water to fill the glass, stirring well.

2. Shaved ice..... ½ tumblerful.
Powdered sugar..... 4 tablespoonfuls.
Juice of one lemon
Yolk of one egg.

Shake well, and add carbonated water to fill the glass.

Orange Cream.

Shaved ice..... ½ tumblerful.
One egg.
Vanilla sirup..... 1 ounce.
Orange sirup..... 1 "
Ice cream..... 1 tablespoonful.

Fill the glass nearly full of cream, shake well, and add a little soda water.

Banana Sirup.

Cut the fruit in slices and place them in a jar; sprinkle with sugar and cover the jar, which is then enveloped in straw and placed in cold water and the latter is heated to the boiling point. The jar is then removed, allowed to cool, and the juice is poured into bottles.

Banana Cream.

Shaved ice... ½ tumblerful.
Banana sirup..... 2 ounces.
Cream or milk..... 8 "

Shake well, add a few pieces of banana, and fill with soda water.

May Bells Perfume.

Extract of jasmine.....	3,000 grammes.
Extract of violet.....	5,000 "
Extract of rose.....	1,000 "
Extract of cassie.....	1,000 "
Extract of orange flowers.....	1,000 "
Oil of linaloe.....	1 "
Oil of bergamot.....	1 "
Oil of coriander.....	1 "
Oil of mace.....	2 "
Oil of ylang-ylang.....	1 "
Alcohol.....	25 "

White Clover Perfume.

Vanillin.....	20 grammes.
Heliotropin.....	20 "
Coumarin.....	20 "
Tincture of storax.....	½ ounce.
Tincture of civet.....	½ "
Tincture of orris.....	1 "
Oil of rose.....	1 drachm.
Oil of bergamot.....	1 "
Oil of neroli.....	1½ "
Extract of tuberose.....	4 ounces.
Extract of jasmine.....	8 "
Oil of cloves.....	5 minims.
Oil of bitter almonds.....	5 "
Terpineol.....	1 drachm.
Alcohol.....	8 ounces.
Glycerin.....	1 drachm.

Wood Violet Perfume.

Extract of violet.....	800 grammes.
Extract of rose.....	1,100 "
Tincture of orris (1:50).....	100 "
Oil of bitter almond.....	3 drops.

Bath Powder.

Starch.....	24 ounces.
Sodium bicarbonate.....	40 "
Tartaric acid.....	36 "
Oil of bergamot.....	6 drachms.
Oil of lemon.....	1 "
Oil of lavender.....	1 "
Oil of pimento.....	30 minims.
Oil of linaloe.....	30 "
Heliotropin.....	30 grammes.

Cement for Glass and Porcelain.—Take one ounce of Russian isinglass, cut in small pieces, and bruise well; then add 6 ounces of warm water, and leave it in a warm place from thirty-four to forty-eight hours. Evaporate the resulting solution to about 3 ounces. Next dissolve ½ ounce of mastic in 4 ounces of alcohol, and add the mastic solution to the isinglass in small quantities at a time, continuing the heat and stirring well. While still hot strain the liquid through muslin.

Patchouli Bouquet.

Oil of patchouli.....	½ drachm.
Oil of rhodium.....	15 drops.
Oil of rose geranium.....	30 "
Oil of citronella.....	20 "
Oil of orange.....	15 "
Oil of bergamot.....	1 drachm.
Oil of nutmeg.....	6 drops.
Oil of bitter almond.....	2 "
Oil of caraway.....	2 "
Benzoic acid.....	½ drachm.
Deodorized alcohol.....	18 ounces.

Lavender Water.

Oil of lavender.....	2 drachms.
Alcohol.....	1 pint.
Rose water.....	6 ounces.
Magnesium carbonate.....	½ "

Rub the oil with the magnesium carbonate; add the alcohol and rose water, and filter through paper.

Grafting Wax.—T. Tidmarsh recommends in The Gardeners' Chronicle, the following mixture as a grafting wax:

Beeswax.....	1 part.
Rosin.....	3 "

Melt together. For use, remelt in a glue pot, the water jacket of which will retain it in a workable consistency for a considerable time, and also prevent it from being overheated to a point dangerous to the scions. For hot climates, the proportion of rosin should be increased to 4 to 1 of wax.

To Remove Rust from Iron.—Apply turpentine or kerosene oil, and after letting it stand over night clean with finest emery cloth.—Druggists' Circular.