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THE CRIPPLED CONDITION OF THE PATENT OFFICE.

The pictures given on other pages of this issue tell a story which has been many times presented in the columns of the SCIENTIFIC AMERICAN, but words have been inadequate fully to set forth the details shown in the numerous illustrations. It is a story of governmental neglect of an important department, to call it by its mildest name, and a neglect so obvious, so entirely without excuse, and so detrimental to the inventive skill of the country as to call for universal protest. The inventors have already paid to the government an ample fund, from which better accommodations and enlarged facilities should be provided for the business of the Patent Office. A vigorous protest on account of past inaction and a demand for prompt measures by the present Congress for the relief of the Patent Office should go up to every Senator and every member of the House. Those interested in inventions should not leave it for the press, single-handed, to fight this battle for them. Members of Congress need to feel the effect of direct appeals from their constituents.

CAPE FLOWERS.

It is an interesting fact that the immortelles known as Cape flowers, and which are now used in large quantities by all florists, come from Cape Town in far-off South Africa. The flower is used very generally in the preparation of funeral pieces, its glossy whiteness and the firmness of its petals furnishing just the material which is required. By many people who handle these flowers they are called "capes," and comparatively few are probably aware that they grow wild in large quantities on the South African coast. The plants bearing these flowers grow to a height of from 12 to 16 inches. They are picked by the natives and placed in cones made of paper and kept from the light until dried, when the glossy whiteness, which makes them so desirable for the use of florists, becomes a fixed quality. Some time ago the government authorities came to the conclusion that owing to the peculiar whiteness of these flowers they must be subjected to a chemical process before being exported to this country, and accordingly an investigation was instituted. The late Maria Louisa Pike, who spent many years in Africa, and was entirely familiar with the flora of that country, gave valuable testimony regarding the nature of the plant which bears the immortelle known as Cape flower. It was shown conclusively that the flowers were not subjected to any chemical treatment, but their white, glossy appearance was the result of natural conditions. These flowers grow in great abundance on the table lands back of Table Mountain, Cape of Good Hope, and no reports of them have been obtained from any other locality.

Cape flowers are more generally used by florists than any other of similar character, though the raising of immortelles and their preparation for market is an extensive business. The immortelle plant first became known in Europe about the year 1629, and has been cultivated since 1815. The chief supplies of *Helichrysum orientale* come from Lower Provence, where it is cultivated in large quantities on ground sloping to the Mediterranean, in positions well exposed to the sun, and usually in plots surrounded by dry stone walls. The finest flowers are grown on the slopes of Bandals and Ciotat, where the plants begin to flower in June.

The flowering stems are gathered in June, when the bracts are fully developed and expanded, the immature flowers being pulled off and rejected. After being dried they are sent to Paris in boxes containing 100 bundles, with the flowers placed outward and the stems in the center. Immortelles are also produced in large quantities in Germany. A well managed plantation is productive for eight or ten years.

FRENCH INTERNATIONAL EXHIBITION OF THE PRODUCTS OF FERMENTATION AND DISTILLATION.

It is a striking circumstance that while on this side of the Atlantic associations are formed to oppose and, if possible, to suppress the manufacture of fermented and distilled liquors, and even legislative measures have been taken and sometimes enforced in aid of this movement, we see the opposite tendency on the other side of the Atlantic.

So, for instance, last month an international exhibition was opened in Paris, under the patronage of the government, in the large palace which still stands in the Champ de Mars and was used as a machinery hall during the recent industrial exhibition.

The minister of agriculture is placed at the head of the enterprise, which is advertised as an exhibition of "those large agricultural products about which France glorifies itself," such as those of the grapevine, of sugar, of various grains, etc., consisting of various wines, brandy, cognac, different kinds of alcohols, alcoholic cordials, and other similar liquors, beer, cider, etc. While other countries have promised their cooperation, and some have already exhibited their productions; so Holland exhibits its Dutch gin, so-called Schiedam schnaps, Belgium its famous faro, Germany its lager and its kimmel, Switzerland its kirsch wasser, Hungary its zinfandel and its famous tokay, and last

but not least, the Rhine provinces their delicious varieties of rieslings, etc.

In addition there are the representatives of various technical schools, special laboratories for research and of educational institutions, as well foreign as French.

The French government, which is specially interested in this industry, from the standpoint of financial revenue, exhibits by documents and apparatus their refined methods to determine the purity of the products, as a protective guarantee for the public health, and the quality, so as to determine the amount of duty to be paid by the manufacturers, while a most interesting feature will be the comparison of the very different methods followed for this purpose in different countries.

But the most interesting part of the exhibition is the retrospective museum, showing to visitors curious objects for comparison between the old and the new methods of manufacture, not only in France but also in other countries, and finally the latest improvements in this line, in which France is acknowledged to stand foremost, with Pasteur at the head.

The Threatened Extinction of the Fur Seal Species.

The Russians, who had explored the northwestern part of the American continent, beginning in 1741, and later appropriated it by right of first discovery, called it Eliaska, Aliaska, or Alaska. They thus obtained a territory of more than half a million square miles, not counting the numerous islands and peninsulas along its extensive coast of 7,860 miles in length—being greater than the Atlantic coast line of the United States, and offering a series of most excellent harbors.

In addition to all this, a smooth inland sea is formed by the numerous islands referred to, while another chain of islands extends from the promontory of Alaska across the Pacific toward the peninsula of Kamchatka in Asiatic Russia; these islands are called the Aleutians. They were first discovered in 1728 by the celebrated Russian navigator Behring, and carefully explored in 1778 by Cook, while shortly afterward (1786) the Russians discovered that another smaller group northwest of the Alaska promontory appeared to be the principal breeding place selected by the fur seals; this group was called the Pribylov Islands.

The Russians had previously done a limited business in the sealskin trade by catching seals where they could find them, skinning them, drying the skins, and selling them in the Chinese market, where they were easily disposed of, as the Chinese do not pluck nor dye them as we do. The discovery of the chief breeding ground gave an enormous stimulus to the business, and soon a rush was made by the Russian trading organizations in Alaska, and more than 100,000 fur seals were caught every year, so that in 1803 several hundred thousand air-dried pelts had accumulated, far beyond the capacity of the Russian companies to find a market for them in time to anticipate their decay.

The reckless seal catching drew the attention of the Russian government, and a decree was issued to forbid seal hunting from 1803 to 1806, for the double purpose to stop the supply, so as not to depress the value of the stock on hand, and to give the seals a rest and let them multiply their posterity in peace. However, while thus the Russian and Chinese markets were glutted, the American and English had no supply; and as Russia had forbidden the chase, they concluded to do what the whalers did some years before when the whales were becoming scarce in the north—they went toward the south pole, where there were plenty of whales, and they reported fur seals also.

As the lands around the south pole were claimed by no one, but free, they applied their methods of quick killing of the seals and salting of their skins, which they found to be far more expeditious than the slow Russian method of drying, which resulted in much delay in the cold and moist regions. They began operations in 1806, and were so successful that in 1826, in the space of twenty years, they had succeeded in exterminating all the seals in the southern frozen regions.

At present the same quick method of killing and salting is applied in Alaska, wherefore, if our government, as well as that of England, does not agree to a united action in preventing the indiscriminate slaughter of the fur seals in the north, the same fate is threatening the northern breeding ground as befell that of the south.

Glycerine Jelly.

Take of gelatine, 300 grains; distilled water, 6 ounces; glycerine, 6 ounces; rect. spirit, 6 drachms; white of egg, 6 drachms; salicylic acid, 12 grains. Let the gelatine soak thoroughly in the water, then dissolve in a water bath; add the spirit, and mix well. When cool, but still fluid, add the white of egg, mix, and heat to boiling point to completely coagulate the albumen; add the glycerine with the salicylic acid in it by the aid of heat; mix well and filter, while still hot, through paper previously moistened with distilled water. The whole should be kept in a hot chamber while filtering. —Martindale.