The Colonial Exhibits at Antwerp.

The colonial exhibits at Antwerp are so full, and are brought so near together, that taken by themselves they form one of the most instructive factors of the whole exposition. France is particularly well represented by the products from her Asiatic domain. It is plain from the variety of fabrics made of it and the quantity of the raw fiber that ramie is one of the most valuable exports of Cochin China; not only is it manufactured into bags, hammocks, and hose for fire engines, but into the finest, most delicate cloth. The fiber of the banana is also used there for some of these purposes. Elephants' tusks and deer's horns, tortoise shells and birds of brilliant plumage are among the exports which the workmen of Paris elaborate into expensive trifles.

Tonkin contributes quantities of silk in long yellow, white and red hanks, also some beautiful tissues in silk; specimens of coal and antimony from there give evidence of rich mines.

Tea from Indo-China, indigo and gum copal from Senegal, sugar, coffee, cocoa and cotton from Guadeloupe, dyewoods from Annam, and caoutchouc from Madagascar, lying side by side, make it clear why the French republic finds it advantageous to have her flag planted on islands and continents all around the globe. The beautiful woods made into mosaics testify to the skill of some of her Eastern subjects; and so does the room fitted up with the prettiest rattan furniture that I ever saw; the chairs made in Tonkin have blue and yellow strands blended with much taste; a sofa of red and yellow rattan came from Madagascar; strong chairs, with their frames made of large pieces of bamboo, and the seats and backs of a firm woven fabric, were made in Cambodia. There are tables, too, of like manufacture, and the whole display suggests no end of comfort in a summer country house.

Portugal has not only fruits, maize, baskets, coffee, skins, etc., to show from her Congo possessions, but photographs of clothed and civilized-looking natives, who seem to have advanced considerably beyond those imported from the Free State. The lace and embroidery from the Madeiras are not inferior to those from Lisbon.

The corner occupied by the Dutch East Indies is full of interest. The quantities of clove, nutmeg, cinnamon, tea and coffee are no surprise, nor are the stacks of bamboo, but bamboo bridges do look queer. They are common in Java, I judge, for here are models of those in different parts of the island; they are beautifully made; one is covered, and all have a considerable span and breadth. Finely executed photographs and paintings of fair merit testify to the artistic taste of the people in Batavia.

The specimens of woods from a number of the colonies are noteworthy. They possess a variety of valuable qualities, perhaps none more than the pyinkado, which is shown in large planks and in paving blocks, in the Indian section of the English department, for it comes from Burma.

This timber is produced by a large tree belonging to the order Leguminosae, and sub-order Mimosae. Large claims are made for it by P. J. Carter, "the conservator of forests in the Pega Circle," who states that the crushing strain per square inch it will resist compares thus with some other timber:

	Tons.
Pyinkado	5,208
Teak	2,838
Kari (eucalpytus)	5,140
Oak	3,411

Its durability is proved by the fact that it was used in 1877 for sleepers on the Burma State Railway, and most of them are still sound. This timber can be bought in Rangoon at $20 a ton for small planks suitable for conversion into paving blocks.

Along with this wood there is a small collection of beautiful fabrics in silk and wool from Indian looms, and some wood and metal work, such as are found everywhere in Oriental shops. In general, it must be said that from anything to be seen here, one would get a very false notion of the resources of the English colonies. That they are almost boundless was the impression made by the magnificent array sent to Chicago from Canada, Ceylon and Australia. Here they do not compare favorably with those of the minor powers already mentioned.

It is clear from a study of these colonial exhibits, brought from the four quarters of the globe, that there has come to be a much wider distribution of products than was to be found a few years ago. For example, tobacco and Indian corn are sent from many of them; coffee, tea and sugar are now cultivated far from the regions where they are indigenous.

It would seem to be a foregone conclusion that all these nations which have possessions in Asia, Africa, Polynesia and the other important islands near or distant from their own shores, will soon be independent of each other as far as the supply of liquors, tobacco, food and clothing for their people is concerned. It looks as if the day when princely fortunes can be made from the exportation of certain commodities to every part of the civilized world were passed. A prophet might be able to discover in these facts signs that the very unequal distribution of material things is to be changed by what might be called a natural method, and as a result the value set upon them may be lessened. A. D.

The Great Falls of Labrador.

The Toronto Daily Mail gives a dispatch from Quebec, dated August 31, containing the following interesting information:

Sixty thousand square miles of an iron-bearing formation, a new lake larger than Grande Lac Mistassini, and the proof of the fact that the big falls of the Hamilton River are the largest in America, if not in the world, are among some of the many discoveries of value made by Messrs. Low and Eaton on their sixteen months' exploration of the interior of the great Labrador peninsula, which has terminated by the return of the explorers to Quebec and their disbandment here to-day. After traversing Labrador last year from south to north, and sailing from Ungava Bay to Hamilton Inlet, where they spent the winter, Messrs. Low and Eaton ascended the Hamilton River to the grand falls on ice, and succeeded in taking a splendid lot of photographs of it with ice cones and other surroundings. The remains of the burned boat belonging to Bowdoin College expedition were found below the falls, and, further on, the bottle containing a record of their trip to that point.

The river falls 800 feet in less than six miles, with one clear steep fall of more than 300 feet. The stream above the falls is as large as the Ottawa. Below the falls it narrows into a canyon of only 30 or 40 feet wide, with steep walls on either side, hundreds of feet high. Mr. Low brought back beautiful specimens of labradorite of the most valuable kind of the gem. It exists in large quantities.

The iron ore deposits to which reference has been made extend from latitude 50 to Ungava, and are very rich. Whole mountains of the ore were found corresponding with the ore of Marquette, Michigan, and containing millions of tons. The large Lake Michikamaw, in the northeast, is more than 100 miles long, not narrow and full of islands like Mistassini, but from 30 to 50 miles wide. Several lakes larger than Lake St. John were seen by the party. The country to the north is a perfect network of waterways, and these contain such fish in abundance as ouananiche brook and lake trout, whitefish, etc.

DECISIONS RELATING TO PATENTS.

U. S. Circuit Court—Eastern District of Missouri, Eastern Division.

H. TIBBE & SON MANUFACTURING COMPANY v. MISSOURI COB PIPE COMPANY et al.

Letters Patent No. 208,816, granted July 9, 1878, to Henry Tibbe, for a corncob pipe having its exterior interstices filled with a plastic self-hardening mass, which rendered the pipe durable and efficient.

Thayer, J.

The Patent and its Construction.—This patent is for a new article of manufacture, and although it did not involve a high order of invention, yet it led to the production of a new article—namely, a corncob pipe having its exterior interstices filled with a plastic self-hardening mass, which rendered the pipe more durable and efficient. (Tibbe & Son Mfg. Co. v. Heineken, 47 O. G., 1221; 43 Fed. Rep., 75; Tibbe & Son Mfg. Co. v. Lamparter, 61 O. G., 427; 51 Fed. Rep., 763.) Pipes thus made immediately came into great demand, and the result of the invention has been the establishment of a new industry, not on a large scale, but sufficient to give employment to a considerable number of persons. Tibbe was the first person who conceived the idea of filling the exterior interstices of the cob so as to render the pipe more durable. He was the first manufacturer of a pipe of that character. He is accordingly entitled to a liberal interpretation of his claim—such an interpretation as will protect him during the life of the patent in the manufacture of what he has invented, and such an interpretation as will prevent others from appropriating the substance of his invention by a colorable departure from the process of manufacture which he describes. The fact that several attempts have been made by persons engaged in the manufacture of corncob pipes to appropriate the idea which was first suggested by Tibbe and yet to evade the claim of his patent by one means or another inclines the court to scrutinize closely and to view with suspicion all processes of making corncob pipes in which the exterior interstices are filled with a gummy or mucilaginous substance of whatsoever nature. In view of the liberal construction which the patent is entitled to receive, the court holds that finely pulverized cornmeal made of parched corn and mixed to any considerable extent with liquid shellac must be regarded as a plastic self-hardening cement, within the meaning of the Tibbe patent, if such a mixture is used to fill the exterior cavities of the cob. Such a mixture undoubtedly sets or hardens, although the elements do not unite chemically, and by so hardening and adhering to the cavities the pores of the cob are closed and the fundamental feature of Tibbe's invention is appropriated. In the case of Tibbe & Son Mfg. Co. vs. Lamparter, supra, this court held that a mixture of cob dust and corn starch, when treated with alcohol and used as a filler, was an infringement of the Tibbe patent, and that it made no difference whether the mixture was made before it was applied to the cob or whether it was made in the act of applying it. The same ruling was repeated on the application for a preliminary injunction in this case.

The Facts.—After a careful perusal of the evidence produced on the final hearing of the case, the court has become satisfied that when liquid shellac is applied to the exterior surface of the cob, according to the process now in use by the defendants, it penetrates to some extent into the finely pulverized cornmeal, with which the interstices have previously been filled, and thereby forms a mixture which hardens and adheres to the cavities and effectually closes the pores of the cob. I have no doubt that it is true that there are many cavities that are of such depth that the liquid shellac does not penetrate to the bottom of the same at their deepest point. On the other hand it is evident that many of the cavities are so shallow that the liquid does penetrate practically to the bottom of the cavity, and that it serves to fill the entire space with a homogeneous mass which is self-hardening. It must also be borne in mind that the cavities of the cob at their point of greatest depth are quite shallow and that the sides thereof slope, so that in any event it seems more probable that by the application of liquid shellac a considerable portion of the cornmeal in each cavity is saturated and formed into a cement. Enough is so saturated to effectually hold the filling in place and bind it to the cob. I can conceive of no sufficient reason for filling the cavities with cornmeal and then applying liquid shellac unless it is intended to penetrate the filler to some extent and make it adhesive and self-hardening.

The court does not consider it necessary to establish the charge of infringement that the proofs should show that the liquid shellac penetrates to the bottom of all the cavities and forms throughout each cavity a homogeneous mass. It is sufficient, the court thinks, that enough of the mass is permeated by the liquid to change its orginal character in part, bind it to the cavity and effectually close the pores of the cob. Upon the whole, therefore, the court has concluded that the charge of infringement is established and that a decree should be rendered in favor of the complainant.

It is so ordered.

How to Silver Mirrors.

BY J. MILLER.

The glass for making mirrors must have its surface optically worked. The following solutions are required, viz.:

(a) Eighty grains of nitrate of silver dissolved in two ounces distilled water.

(b) Eighty grains of pure caustic potash dissolved in two ounces distilled water.

Ammonia solution is added to a, drop by drop, continually stirring, until the whole of the silver is deposited and redissolved. When all the silver has been redissolved, the solution becomes clear. The potash solution, b, is then added, when the solution again becomes black. More ammonia solution is added drop by drop, stirring as before. The slower the ammonia is added, the finer the division of the silver is. When the solution again becomes clear, the action is complete. A weak solution of nitrate of silver is then added, drop by drop, until a very pale brown color is attained. Errors may be corrected by adding more silver or ammonia as may be necessary. The silver should be slightly in excess in the final solution. This solution should not be kept, as it becomes a powerful explosive.

Filtering is not recommended. Two and three-quarter ounces of solution are taken, and water added to make it up to eight ounces. The glass for the mirror having been made chemically clear with nitric acid, and washed in distilled water, is placed in a bath face downward, but supported, to prevent the face touching the bottom of the bath. It is then covered with the solution for a few minutes. Half an ounce of reducing solution (ten per cent solution of sugar of milk or grape sugar) is then taken, and the solution from the bath poured into it. It is then poured back carefully over the mirror, avoiding the formation of air bubbles, when the deposition of silver begins to take place, and the solution becomes muddy. The slower the action takes place, the harder the deposit. Leave until all the silver has been deposited, then pour off the solution, wash with distilled water several times. Dry carefully to avoid markings, and polish the face of the mirror with rouge when it is completed, and may be kept for use wrapped in velvet. Two mirrors were successfully made by the demonstrator.—South London Society.