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NEW YORK, SATURDAY, FEBRUARY 4, 1893.

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FAVOR THE INFRINGER.

A bill has lately been introduced in Congress by Mr. Tillman, of South Carolina, providing that no patent people from many avenues of trade and labor. shall, by reason of a broad or dominating claim or actual improvement in the invention forming its subject matter, provided the patentee or owner of the improvement shall pay a reasonable royalty or tribute to the owner of the patent having the dominating claim, the amount of royalty or tribute to be determined by a court of the United States, the court to take into consideration the profits, past or prospective, to the owner of the improvement and the damages of the dominating patent, similar as in the case of a decree for infringement.

inventor the exclusive right to make use and sell his invention for the short period of seventeen years.

The proposed law takes this right away from the inventor and bestows it upon the court, thus making the court in the first instance a party to the control and management of the patent. Under this proposed law not only is the inventor deprived of his exclusive rights, but the infringer is allowed to drag the original inventor into court, subject him to trouble and expense, requires the court to discriminate in favor of the infringer, and compels the inventor to share the proceeds of his invention with the infringer.

Of all the schemes to emasculate the patent laws, the foregoing plan of giving encouragement and support themselves heard. It is felt that the Chinese governto infringers by legal enactment is the worst and most | ment may yet adopt retaliatory measures which will absurd. It remains to be seen whether Congress will sanction such an act of folly. It is in direct contravention of the spirit and intent of the constitution of the United States, which provides in Article 1, Section amendment. Laws proposed as substitutes of in-8, that Congress shall have power to promote the progress of science and the useful arts, by securing, for limited times, to authors and inventors, the exclusive juster methods of treatment. right to their respective writings and discoveries.

#### THE EXCLUSION OF CHINESE.

On January 18 of the present year, at Duluth, Mins. Judge R. R. Nelson, of the United States Court, rendered a decision in the case of a Chinaman who was brought before him on habeas corpus proceedings in a suit under the Chinese Exclusion Act. The case was a motion for the release of Ah Yuk, a Chinaman, who had violated the act. The accused was a seven-year resident of the United States. Under the act he was 800 workmen directed by the most celebrated artists. to have been returned to China. His crime was illegal After the death of Louis XIV., the factory reverted to presence in this country. The motion for his release its original work of making tapestry only. The nathirty days and the returning to China of such persons as the accused, after no other proceedings than a hearing before a United States Court Commissioner, was unconstitutional. The right to a trial by jury was pleaded, and the judge acquiesced in the counsel's plea. The act, in the provision affecting the prisoner's case, was held to be unconstitutional, and the prisoner was released.

The Chinese Exclusion Act has recently been attracting much attention and criticism on account of the radical measures embodied in it. It forms Chapter 60 of the laws passed by the 52d Congress, and is dated May, 1892. It begins by holding in force the previous laws excluding Chinese. It then ordains that Chinese not legally here shall be removed to China or to such required on their return to such country, they shall be is as much as 7,000 francs. The characteristics of sent to China. If adjudged guilty of illegal residence Gobelins are large historical scenes and reproductions the culprit, as this law treats him, is liable to a year's from celebrated paintings. Sales to private persons imprisonment before removal. No bail is allowed on habeas corpus proceedings. All Chinese laborers entitled to remain here are, within one year from the passage of the act, to apply for a certificate of resiagainst.

merely an exile submitted to as a business venture. executed by them as laborers.

Our nation of sixty millions of people is threatened by another problem in the race question. Already the existence among us of some eight millions of negroes is regarded by political economists as the basis of a very difficult problem, which is far from solution. The elements of this case are similar to those of the Chinese immigration question. In both cases there twenty-four hours after it has been plucked. It has are unassimilatable races of small capitalization. But lately been carried to Europe from Tahiti, where the

ANOTHER BILL TO DISCOURAGE THE INVENTOR AND culty that they simply desire to send in floods of temporary residents, with almost limitless sources of supply of new immigrants to crowd out our own

If a permanent population of eight millions of neotherwise, prevent the practice or use of any patented groes, not re-enforced by immigration, is enough to constitute a difficulty for political economists to dispose of, what may we not be confronted with in a floating population of indefinite capability of extension. It certainly seems that we are entitled to adopt some measures of restriction. But the humanitarian aspect of the case tells against the present law.

A year's imprisonment is the measure of the criminality of simple residence. This is certainly a measure unworthy of a civilized people. It fairly savors of ferocity to imprison for so long a period one whose offense is The law as it stands awards to the original and first mere existence. The decision that the act is unconstitutional in one particular serves to emphasize its broad injustice. By no principle of justice can the presence of an inoffensive person in a country be construed as a crime. The expulsion of the Jews from Russia is really the only instance of the present day that is comparable with the action of the United States as dictated by the Chinese expulsion laws.

The limitation of the numbers coming here could be otherwise brought about. A poll tax could be levied on every Chinese entering the country. This could be made high enough to deter them from coming in large numbers.

Already many murmurs of dissatisfaction are making make themselves felt upon American residents of China. Independent of the fear of such action the injustice and inhumanity of the act should suggest its creased severity should be discouraged. Excessive immigration would be amenable to more logical and

## Gobelins Tapestry.

A report of the United States consul general in Paris on French tapestries gives some interesting information in regard to the famous Gobelins factory. It was founded in 1607 by Henri IV., in the scarlet dye works originally established in the fifteenth century by Jehan Gobelins. In 1662 it was bought by Louis XIV., on the advice of Colbert, and formed into the "Manufacture des Meubles de la Couronne," with was based on the theory that the imprisonment for tional factory of Gobelins is now divided into three sec tions, dye shops, tapestry shops and carpet workshops. The first not only produce every color, but twenty or thirty shades of each. The execution of the tapestry is so slow that an artist cannot produce more than a fourth of a square yard in a year. In 1826 the manufacture of carpets was added. These are remarkable for their softness and the evenness of their tissue. Some of them take five to ten years to produce, and cost from 60,000 francs to 150,000 francs. Several tapestries of special importance exhibited at the Gobelins are mentioned by the consul general. A sportrait of Louis XIV. by Rigaud is considered the chef-d'auvre.

A special account of the method of making the tapestry, by Mr. Debray, an expert, is also given in the report. This gentleman says that the value of other country as may claim them. If they do belong Gobelins is on the average 3,000 francs to 4,000 francs to another country, and if a fee or immigration tax is per square meter, while that of the Beauvais tapestry are only permitted by the special authority of the minister of fine arts. To the Gobelins factory is joined the carpet factory of La Savonnerie (the building in which this work was first commenced was originally a dence, or otherwise are to be arrested and proceeded soap factory), in which velvet carpets, reproducing historical and mythological subjects, are manufactured These are the main provisions of this act, one which in the same way as velvets. The artists at Gobelins remakes the breathing of the air of the United States a ceive very high salaries. Hand looms only are emcrime if perpetrated by a Chinese. The exclusion or ployed, and tapestries of the ordinary dimensions rerestriction of a tide of immigration from the Orient, quire on the average three years. The manufacture with its hundreds of millions of aliens, may be neces- of silk tapestries at Nimes has been declining since sary. The immense Chinese empire could pour out 1750, and there, as at Aubusson, it is in private hands. upon our shores an entire population of their race At Beauvais as well as Gobelins the manufacture is without feeling the difference. The good qualities of controlled by the state. Cotton warps, called boyaux, the Chinese are undoubted, but they do not assimilate are employed, the weft is of twofold wool, and is a with the Caucasian race. They do not come here to species of Australian mohair wool, denominated laine found homes for their children. Their stay here is brode, its characteristic being that it is open and firm. The wefts are dyed by expert chemists and dyers, by They bring with them nothing that can be of profit to the old method of wood dyes, such as indigo, cochineal us. They leave behind them nothing except work and curcuma. Part wool and part silk tapestries are also manufactured, and a limited number all silk.

#### A Luminous Fungus.

The Union Medicale for December 27, 1892, gives a short account, from the Revue Scientifique, of the Pleurotus lux, a fungus that takes its specific name from its property of glowing in the dark, even for with the Chinese there is present the additional diffi- women use it as an adornment in bouquets of flowers,

[SPECIAL CORRESPONDENCE OF THE SCIENTIFIC AMERICAN.]

The World's Columbian Exposition

THE PRESENT CONDITION AND PROSPECTS OF THE GREAT ENTERPRISE-INTERESTING NOTES AND PARTICULARS.

CHICAGO, February 1, 1893.

It has been officially announced from the time of This date is now three months off, and such an im-this. mense amount of work remains to be done that the question arises as to the ability of the Exposition manthis work. Cold weather has practically prevented outdoor work for some weeks past, and but little work important work is still to be done in completing the quires time.

been assigned to foreign countries. The Manufactures applications for space in these buildings are on hand wished they were. and have not vet had assignments made, so that space is by no means begging. In the Electricity Building the Westinghouse Electric and Manufacturing Commore than twice the available space has been applied pany, asking an inspection of some of the electrical apfor. Last week a little gain was made, as the allotexpiration of the time in which acceptances were to be made, the space has reverted to the use of the department to distribute to other exhibitors.

Of the 3,500,000 feet of space to be devoted to exhibition purposes, not a single exhibit is in place in the mos is placed at 15,000 sixteen candle power lamps. more important buildings, and with but two excep- The weight of each dynamo is 150,000 pounds. The tions the buildings themselves are not completed. The armature alone weighs about 42,000 pounds. status of these buildings is as follows:

Manufacturers and Liberal Arts or Main Building. -So far as the exterior is concerned work is completed, but in the interior a large area is yet unpainted. pany officially announces in its circular that the plant Three railway tracks extend the whole length of the to be installed will be prepared to run 130,000 lamps. building from south to north for the purpose of un- The display in Pittsburg also includes the first public loading exhibits, and quite a number of boxes of ex- test of the new stopper incandescent lamps, which are hibits are scattered about. The floor plan is all to be used in the Fair installation. It is believed that marked out, but work has not been begun on install- the daily renewals of lamps when the exposition is well ing an exhibit. With nearly 800,000 feet of space to be under way will be about 1,000 lamps. In order to make covered with exhibits, three months seems a remarka- a practical exhibit of incandescent lamp making, the bly short time in which to accomplish all the neces- company proposes to have as part of its display suffi-

Palace of Mechanic Arts, or Machinery Hall .-Prospects are rather less encouraging for the prompt | current from the large generators will be multiphase, the completion of the exhibit in this building than in any new Tesla motors will be operated by it in addition to other. Several weeks' work remain to be done to fin- the lighting in the Electricity Building. Another ish the exterior of the building. Work on the interior prominent feature of this company's exhibit is anis greatly behind, and much remains to be done before nounced to be the latest development in long distance it can be painted. Huge pieces of machinery are scat-transmission of electricity. tered about-part of a dynamo here, a fly wheel there, and parts of engines hither and yon. The foundations for the heavy installations are all completed, and board and lodging during the holding of the Fair that most of the flooring is laid. The three electric travel- the Exposition management has taken official action ing cranes are in place, and are quite invaluable in on the subject. Major Kasson, of the Bureau of Public expediting things, especially in placing the engines and Comfort, has had a canvass made of the city and has other heavy machines on their foundations. Three established an official directory of desirable rooms and railway tracks enter the building at the west end, and suites of rooms. The bureau offers to sell rental ceras exhibits are unloaded they are speedily removed tificates against these rooms, guaranteeing a reasonaby use of the cranes. Half a dozen of the fifty or more | ble and specified price, ranging from \$1 upward. In engines of the great power plant are in place; but these this way intending visitors can select in advance rooms are by no means ready to put into operation. A few to suit their purses and their convenience, as the direcof the boilers are ready for use; in fact, some of them tory includes rooms from Lincoln Park on the north have already been fired up, but most of the batteries to Seventy-third Street on the south. Inside the Fair Minn., has lately, according to the Engineering Record, are not completed, and work has not been begun on Grounds ample facilities have been provided for feedbegun. A temporary electric plant occupies space tended to have these accommodations sufficient to building. Among the eminent names in the mechani-, the large buildings and in all parts of the grounds. cal world that are conspicuously lettered on the exterior of this building is that of Seimens. It would be an unfortunate blunder not to have this spelling corrected before the Fair opens.

Agricultural Building.-Work is completed on this building, both exterior and interior, and considerable work has already been done preparatory to installing the exhibits of Illinois, Wisconsin, and New Jersey.

Electricity Building.—This building is completed so far as work on it is concerned, and the Bell Telephone Company and the Western Electric Company have the structures to accommodate their exhibits well toward completion. The former occupies a commanding position directly in front of the main entrance at the south end of the building, and gives promise of being very complete. It occupies a space 100 feet long by 75 feet; be shown in actual operation and use in this hospital, wide, and is raised four feet above the floor of the building, broad stairways leading up to it at each end. A as possible. railway track has been laid the entire length of this

with two large temporary electric elevators, just completed, exhibits should be speedily handled and in-

The Mining Building was completed, so far as the structure was concerned, months ago; but the interior is yet to be painted and the first step toward installing the organization of the World's Columbian Exposition exhibits is not as yet taken. A railway track has been that the formal opening to the public would been May laid through the center of the building preliminary to

The Transportation Building is completed; but the agement possibly to come up to time in accomplishing Tracks for the exhibition cars are all laid, and the electric transfer table is already in operation.

Previous to the dedicatory exercises, last autumn, is carried on on the exterior of the buildings. Much 8,000 men were employed inside the Fair Grounds. With such a force buildings sprang up almost in a day layout of the grounds. Walks and drives are to be and slabs of staff were put in place with marvelous having prevented him from giving much direct attenmade and hardened, much turfing to be done, flower rapidity. Need for more such rapid work is now at tion to World's Fair matters. beds laid out, and other such work done that re- hand, and it is to be hoped work may be pushed with the vigor that it was then. The facilities are at hand, More important than these, however, is the question so far as the Exposition is concerned, for completing its of installing exhibits. The amount of space to be de- part of the work in time if the vigorous effort of last voted to exhibition purposes is a little over 3,500,000 autumn is again resorted to; and if exhibitors are square feet. Nearly 1,500,000 square feet of this has prompt in doing their share the Exposition may open May 1 in a satisfactory state of completion. But with and Liberal Arts Building, the Palace of Mechanic all the delays incident to having so many interests Arts, the Transportation Building, the Mining Build- work promptly and in harmony, the prospects are not pointed consulting engineer to the Department of Elecing and others still have some space to spare. Many as satisfactory to the friends of the Exposition as it is

paratus which is to form part of the incandescent ments made to Mexico, Australia, Canada, Italy and lighting plant at the Fair, and which is now exhibited several other nations had not been accepted; so, by the at this company's shops, previous to its being shipped to Chicago. The feature of particular interest at this display is one of the 10,000 light dynamos direct coupled to a 1,000 horse power Westinghouse compound engine. The maximum capacity of each of these dynaminimum number of lamps called for by the contract between the Exposition and the Westinghouse Company is 92,000 of sixteen candle power, but the comcient facilities to make all their renewals by renewing the carbon burners of the burned-out lamps. As the

So much has been published in the daily press regarding extortionate prices that are to be charged for some of the installations, not a brick being laid, or ing the crowds, as 150,000 or more square feet of space covered by the superintendent, in one of two service even the preliminary work of clearing away the ground have been reserved for restaurant purposes. It is inwhere part of the engine plant is to be, and temporary provide for 75,000 people, and on special days nearly as failed to improve. One of the pipes delivered pure circuits are stretched from this plant through the many more. Restaurants will be provided in each of water and one supplied a muddy liquid that was of no

plans were made for a hospital service at the grounds position proved effective. The boiler of a portable enduring the holding of the Fair. The Board of Lady gine was connected with the faucet of the kitchen sink these arrangements, particularly as it offered oppor- sure of 70 pounds forced against the 35 pounds water woman's work, and as a result of this interest the hoscaring for the ill and the injured, but it will also be made an exhibit. Leading hospitals in the country of the best trained nurses in Chicago have offered steaming process. their services to the Exposition management in order that the hopes of what this hospital ought to be may be realized. All the latest devices for hospital use will while the ambulance service will be made as complete

The temporary electric circuits that have been used so cold that the drop of water will be frozen.

building on the east and also on the west side, so that for supplying current to the various parts of the grounds have been unsightly, as the poles seem to have been set with regard to their being most conspicuous. Now that the subways are all completed and the permanent circuits installed, these poles and the temporary circuits are being removed. Until within a few weeks it has been proposed to string some of the permanent circuits under the elevated tracks of the intramural road, but it has finally been decided that these with all other wires shall go underground.

Dr. Hornsby, who has been secretary of the Departwork of painting the interior is not quite finished. ment of Electricity since its inception, has been promoted to the position of assistant chief, with increased salary. This is a deserved promotion, as Dr. Hornsby has done practically all the work of the department from the first, the duties of Professor J. P. Barrett, chief of the department, as city electrician of Chicago,

> The American Institute of Electrical Engineers has been assigned a suite of rooms in the gallery at the south end of the Electricity Building, adjoining the offices of the Department of Electricity. With such facilities, the Institute will be able to fittingly accommodate its members and entertain the many eminent electricians who will be in attendance at the Exposition.

Mr. Willis Hawley, of Urbana, Ohio, has been aptricity, and has already entered upon his duties. He is to aid Assistant Chief Hornsby, of this department, Invitations have just been received in Chicago from in taking immediate charge of the work of installing exhibits.

### Activity of Three North American Volcanoes.

Padernal Peak, situated in the wilds of Rio Arriba County, New Mexico, is reported as now in a violent state of eruption, and is belching forth sulphurous fumes and lava at intervals of about three hours, each lasting about thirty minutes.

This has been going on since the last week in December. The entire top of the mountain, which was almost square and about a mile in extent, is stated to be blown off, and the lava pouring down the sides has already filled up the valley for about half a mile on

A considerable portion of a ruined city of the ancient cliff dwellers will be covered with the slag should the eruptions continue. Padernal Peak is one of the most prominent landmarks of the Territory. The Mexicans say that it burst forth in violent eruption in 1820 and did not cease for nearly a year afterward. It has lain dormant until the present time.

The rumbling noise and lurid light can be plainly heard and seen at Sierra Amarilla, seventy miles distant, and an army of people from there are now at Ariquin to witness the impressive sight.

An earthquake shock felt at Orizaba, Mexico, recently, greatly frightened the people living in the vicinity of the Orizaba volcano.

The town of Orizaba lies about seventy miles by rail southwest of Vera Cruz and about twenty-five miles south of Mount Orizaba, the snow-clad peak of which is said by some to be 17,380 feet above sea level, and by others to be the highest peak in North America.

The residents of Colima, the capital of the Mexican State of that name on the Pacific coast, also feel a nervous apprehension regarding the volcano of Colima, which, reaching a height of about 12,000 feet, looms skyward about thirty miles northeast of the capital. Every night a lurid light illuminates the sky above the mountain, and it is feared that this portends a serious eruption.

# Vegetable Growth in Water Mains.

A vegetable growth in the water mains at St. Paul, been the cause of some trouble. The first case was dispipes in a single trench supplying a double house. A complaint was made of bad water, which flushing use. This fact led to the conclusion that one of the Some months ago what were supposed to be ample services was foul; and the remedy applied on this sup-Managers have become interested in the perfecting of from which the muddy water came, and a steam prestunity to show one of the most successful lines of pressure for 30 minutes—thereby driving the water out of the pipe. Since that time the pipe has always depital service will not only be planned with a view to livered clear water, and twelve similar cases have been successfully treated in the same manner. Great care has to be taken that there are no leaks in the service will join in the effort to carry out this plan. Several pipes, and that none of the fittings are open during the

# How to Freeze Water on a Small Scale.

Take a concave watch glass, touch the convex side upon water so as to leave a drop hanging on the glass. Pour a little ether into the concave and blow upon it. The rapid evaporation of the ether will render the glass

#### THE WORLD'S COLUMBIAN EXPOSITION.

THE BRITISH SECTION.

"Westward the course of empire takes its way," as Bishop Berkeley sang a century ago. Never was it lish pictures, and it is quite a limited number of imtruer than to-day, when all our thoughts are turning portant canvases by our leading artists which finds its Chicagoward. So a representative of the Illustrated way across the herring pond. Nearly all the Royal play, will you give me some details?" London News sought an opportunity of gaining from Academicians will be represented. Now as to your

Sir Henry Trueman Wood a few particulars as to the progress of the British Section in the World's Fair, which opens next May.

Sir Henry Trueman Wood, in his business-like office in the Adelphi, has for some time past been "doubling the part," as actors say, of secretary of the Society of Arts and secretary of the commission which is dealing with the various questions in connection with Great Britain and the Chicago Exhibition. His experience of exhibitions has resembled Sam Weller's acquaintance with London in being "extensive and peculiar." He first found scope for his energy and great powers of organization in connection with the Health and the Inventions exhibitions, held respectively in 1884 and 1885. The difficulties attending the Paris Exhibition of

the British government, only served to call forth the skill of the secretary of the Society of Arts in surmounting them. His services on this occasion were gracefully acknowledged by his creation as an officer of the French Legion of Honor and by knighthood conferred by his sovereign.

'Well, first of all, how much ground will the British section cover?" was the opening for conversation.

"About 500,000 square feet, I expect. Of this space, two-fifths will be occupied by our colonies. This is a decided advance on previous exhibitions, for our maxi- tional Gallery and the South Kensington pictures are mum has been hitherto 360,000 square feet—at the precluded from being lent. The Queen has graciously The chief exhibit will be a splendid collection of ap-

Paris Exhibition of 1878. By the way, I may tell you that to view every exhibit in the World's Fair one will require to walk fifty miles."

"Then as to the total of British exhibitors ?"

"Well, I fancy we shall be represented by six hundred in the industrial sections. In the Fine Art Section there will probably be between eight hundred and nine hundred works, by some three hundred artists. About one thousand applications were received, and every care has been taken to select those exhibits which shall give an adequate and interesting picture of Great Britain's commerce and art. Allotments were made to us in the following departments: Agriculture, Electricity, Fine Arts, Fisheries, Forestry, Live Stock, Machinery, Manufactures and Liberal Arts, Mines and Mining, Transportation, and in the Women's

Building." "Will there be much moving machinery?

"Three steam engines will be at work, but I think one of the finest exhibits in this department will be Platt's cotton-cleaning machinery. Printing and typesetting will be illustrated, and there will also be shown looms, spinning frames, steam hammers, and the usual miscellaneous machinery."

"Wher on view?"

"In the Manufactures Building, where will be found some fine specimens of such heterogeneous goods as Worcester porcelain, Doulton ware, jewelry, furniture, silks, wall papers, billiard tables, linen and old gold work from Ireland, chemical products, etc., and in the gallery of this section there will be a great attraction in the shape of photographs-oh! yes; the ubiquitous amateur photographer will be represented-newspapers, scientific instruments, and various

educational appliances used by the School Board for set the example to private collectors by lending us cer-added to a quart of tainted water, will effectively London and the Science and Art Department."

"How have your appeals for pictures been answered?" "I attach a good deal of importance to the Fine Art Department. The Americans nowadays are greatly very little the British school of art, so that this ought | carriages (and for good vehicles Americans usually come | acidity of the lemon.

to prove an excellent opportunity for finding a mar- to England), and ship models from most of the great ket. The New York dealers, who have the whole con- firms. This latter exhibit is certain to be popular, trol of the market, do not encourage the sale of Eng-



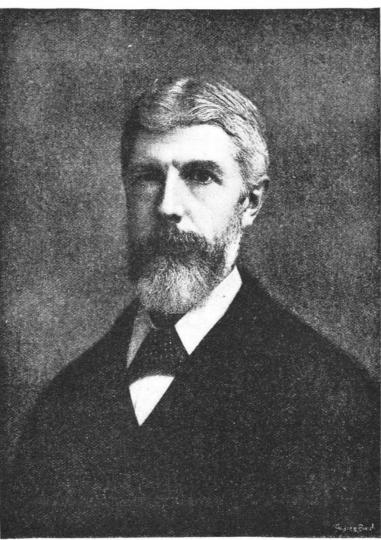
THE VICTORIA BUILDING-OFFICES OF THE BRITISH SECTION OF THE CHICAGO EXHIBITION.

1889, which had been refused official recognition from query about the replies we have received on this sub-exhibits. Of course, specimens of Indian art, which ject, I have found in the north of England that the McKinley tariff has left such a sore feeling with many private collectors that they have been very loth to

> "As to public galleries; do you get any pictures loaned ?"

> "No; scarcely any. Now in France or Germany, with just the assent of the government, which is never difficult to obtain on this point, an exhibition may borrow largely from public collections. But the Na-

assist the World's Fair in any way."



SIR H. TRUEMAN WOOD.

be the British contents of the Transportation Gallery?"

"In the first place, there will be engines and carri-

judging from the success which the Naval Exhibition attained."

"As to the part which our colonies are going to

"Canada will hold premier position, showing exten-

sively in the Agricultural, Mining, and Manufactures Buildings. Next to the Dominion comes New South Wales, sending merchandise and timber. They are going to have an enormous trophy representing the silver taken out of the Broken Hill mine. Ceylon will have a great deal of tea, naturally both for show and for sale. Both Cevlon and India intend to have native attendants on the spot to give a local coloring to their tea stalls. You may recollect that India was very late in deciding as to whether it would be represented at the exhibition, and as a result of the government's delay and refusal to take an active part in the matter India was not able to obtain as much space as might have otherwise been the case. However, I think we shall have no reason to be ashamed of her

meet you everywhere, will not be lacking. Finally, the Cape is determined to manifest its importance by showing the various processes connected with diamonds such as the washing and searching in the blue clay for these precious stones. Curiously enough at these exhibitions there is always a profusion of diamonds in every sample of clay!"

"Is Great Britain contributing much to the Electrical Section?"

"Not so much as I could have wished. English electricians have had rather a surfeit of exhibitions lately.

> paratus in use for the purposes of telegraphy by our post office. I may add that there are some specimens of platinum, etc., in the Mining Section. There are, unfortunately, not many exhibits in the Horticultural Department, but we are fairly to the front in the Agricultural Building. Mr. Burdett-Coutts, M.P., is showing a model of his stud farm, which is certain to interest the sportsmen. Then there is a model dairy and a good selection of baking machinery."

"Do you think the early visitors to the World's Fair can be promised a complete exhibition?"

"Yes; I think matters are progressing so favorably that things will be in working order by the date of opening. I will undertake to say that the British Section will be complete and ready on the first of May. We are going to have a 'British House,' called after her Majesty the Queen."

"As to our exhibits-are they already being erected?"

"Many of them are in the United States or en route, but, so far, I believe they are not placed in the grand buildings which will be their home. I was over in Chicago in July, that being the second time I have visited the city on exhibition business, and expect to go on again in February to organize the British exhibits. I shall probably remain until August. There will be a cular staff to undertake official work the spot, and I trust we may realize a great success."-Illustrated London News.

# Citric Acid as a Water Purifier.

The well known chemist M. Girard, chief of the Paris Municipal Laboratory, has lately been engaged in making researches concerning the bacilli of cholera and typhoid fever; in so doing he has once more proved the effects of acids in destroying microbes. He finds citric acid to be the most useful and powerful of all. One gramme, he says,

tain pictures." "Will you tell me what are going to destroy all the microbes that may be in it. Consequently he recommends the use of natural lemonade as an excellent beverage at all times, and especially ages from various railway companies. Then there will during epidemics. If necessary, a little bicarbonate given to French art, and they really appreciate but be cycles, a model of the Forth Bridge, pictures and of soda can be added as a means of neutralizing the