NEW USES FOR CORN.

Helps to Make Smokeless Powder and Many Other Products.

Farmers in the Indian corn belt may not be aware of the fact, but it is, nevertheless, true that the manufacture of the new smokeless powder promises to benefit them extensively, announces the New York Sun. The British government closed a contract last fall with the Standard Distilling Company of Chicago for the immediate delivery of 124,000 gallons of distilled spirits at Montreal, with an intimation that it would want 450,000 gallons more in a short time. The spirits ordered were for use in the manufacture of smokeless powder. The Japanese government has recently ordered 6,000 barrels of spirits for the same purpose, and has given notice of large future requirements. Our own government has recently ordered 10,000 barrels, and further orders will follow. Henceforth smokeless powder will be exclusively used in civilized warfare, and in the manufacture of this powder distilled spirits play a prominent part, thus opening up a new and quite extensive market for American corn.

In the light of these facts, the preparations of Great Britain and the constant rumors of a great European war take on a local and personal interest to every western corn grower. An extensive war among the great European nations would have a marked effect upon the market for spirits and for corn, as the whole world is to a large extent dependent upon America for this ingredient, of smokeless powder, and this powder is a necessity in warfare. This use for corn, coupled with the foreign demand for a cheap food article, which is increasing rapidly, practically assures the farmer a fair price for his staple; but other new demands of equal importance should not be overlooked. The number of articles of commerce that are now being made from corn has reached twenty-nine, and every particle of the grain is at present turned into some useful product. The glucose sugar refining companies alone manufacture this number of products, and the number of bushels of corn consumed by their factories in the United States reaches well into the millions.

The following is a list of the products now being manufactured from corn without the use of any other material:

Mixing glucose, of three kinds, used by refiners of table syrups, brewers, leather manufacturers, jelly makers, fruit preservers and apothecaries.

Crystal glucose, of four kinds, used by manufacturing confectioners.

Grape sugar, of two kinds, used by brewers principally; also by tanners.

Anhydrous sugar, used by ale and beer brewers and apothecaries.

Pearl starch, used by paper and cotton mills.

Powdered starch, used principally by baking powder manufacturers, and also by cotton and paper mills.

Refined grits, used in the place of brewers' grits; they are giving better results.

Flourine, used by mixers of flour, without detriment, except as to the feeling that a corn product is taking the place of a wheat product.

Four kinds of dextrine, used by fine fabric makers, paper box makers, mucilage and glue makers, apothecaries and many similar industries where vegetable oils are employed.

Corn oil cake, gluten feed, chop feed and gluten meal, all cattle-feeding stuffs of a high grade and capable of being scientifically fed with superior advantages.

Rubber substitute, a substitute for crude rubber and very extensively used.

Corn germ, the material from which the oil and cake are obtained.

British gum, a starch which makes a very adhesive medium, and is used by textile mills for running their colours, as well as manufacturers who require a very strong adhesive medium that contains no trace of acid.

Granulated gum, which competes with gum arabic, is used successfully in its place, and finds a ready preference by reason of the absence of any offensive odor.

Probably the most important in the above list of products is rubber substitute, the substance which Chicago chemists have recently brought to perfection. This new rubber, made from the waste of ordinary yellow corn, will cheapen the price of rubber goods 25 per cent. Corn rubber must be combined with an equal quantity of Para rubber to give it general utility. Twenty chemists have been employed at the Chicago refinery for a year in bringing this new rubber to perfection. The greatest difficulty has been to make a product that would resist heat. At last the chemists have developed a quality of corn rubber that will bend, stretch, and show all the resiliency of the best Para, which is the standard of commerce. In the manufacture of glucose part of the corn, about five per cent, could not be utilized. This waste is what will be transformed into the new substitute for rubber. Corn rubber has almost the same appearance as the ordinary reddish brown India rubber. Oil of corn, from which principally the rubber is made, does not oxidize readily. Its tendency towards oxidization is one of the principal defects of India rubber. The chemists who have been working on the corn rubber declare this to be an enormous advantage for the new product. Articles manufactured from it will always remain pliable and not crack. It is calculated that corn rubber can be sold at six cents a pound. It can be adapted to nearly all the uses to which ordinary rubber is put, from bicycle tires to linoleum.

FORESTRY.

W. Willard Ashe, one of the greatest experts on forestry in the United States, and who has been commissioned by the government to prepare the forest exhibits at the Paris Exposition, is now paying a visit to this section of the West. Mr. Ashe has given a great deal of attention to this subject. In an interview while here he said:

"We will have a great exhibit at Paris. I shall have several sections of our great trees on exhibition there. The subject of forestry is one that is very extensive and opens up a great field. I am not an alarmist and do not believe in fire alarm methods. Our forests have suffered by fires and otherwise. If we permit them to grow, we will obtain satisfactory results. We cannot restore our forests by replanting. My observation has been that the forests have not been so badly destroyed as to render their future growth impossible. I am not much of a believer in reafforestation. I have inspected the forests of your western mountains, and I believe Nature will assert itself. Take your older forests, and even if it is cut out, the new growth will renew it.

"I see a great deal of talk about sheep, but I will put my opinion that sheep do not hurt a forest and do not injure the water supply. Of course, when sheep are turned on to land they will naturally injure the young growth of the forests some, but they cannot hurt the older timber."

DENVER, Colo., Oct. 30, 1899.

My Dear Sir: The enclosed is cut out of a Wyoming paper.

Had any one desired to give comfort and relief to the tie and timber thieves in that state, he could not have done better. I don't know who Mr. W. Willard Ashe is, but if he don't believe in fire alarm methods, and if he does not know that our mountain fires destroy the very soil; if he does not know that the cutting out of a forest and fires have altogether different effects, so far as the new growth is concerned; if he does not think that sheep absolutely prevent a new growth from springing up, then all of us who have tried to preserve and reafforest our woodlands, have been utterly mistaken.

I think the outlook is discouraging.

Your friend,

HENRY MICHELSEN.

"Bryan's candidacy will be viewed as a menace to the currency, no matter what legislation may have been enacted by the present congress," says the Baltimore News (dem.); "the republicans, by doing their duty in the matter, will make very few voters more willing to take the chances of a Bryan administration, while they will give to their own claims the strength which always comes from taking a courageous attitude on a vital issue."