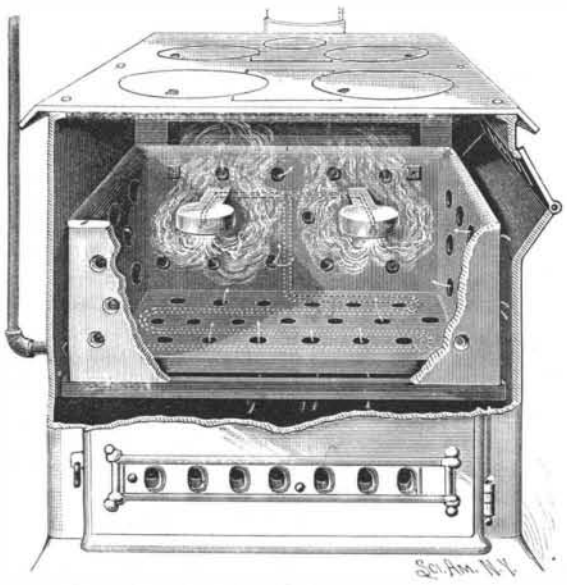
A BURNER FOR COOKING OR HEATING STOVES.

The illustration represents a burner designed for convenient insertion and use in ordinary stoves for cooking and heating purposes. The improvement has been patented by Mr. Theodore A. Williamson, of No. 234 Juniata Street, Allegheny City, Pa. In the fire box of the stove is placed a box with perforated side and bottom plates, sufficient room being left at the back, front, and sides of the box to permit the free access of air for the promotion of combustion, and in the bottom plate of the box is formed a coil connected with a supply pipe leading from an oil reservoir, conveniently located at a safe distance, but so as to afford a ready flow. The coil, instead of being cast in the bottom plate, may be formed thereon by piping or other means, but the inner end of the coil terminates in a vertical channel in the back plate, this channel



WILLIAMSON'S HYDROCARBON BURNER.

leading to branch channels connected with burners, as shown in dotted lines. When the burner is in operation, the heat from it converts the oil passing along the coil and branch channels into gas, and the burners are so placed that the heat therefrom will pass readily to the channels of the stove in the usual way. A transverse, vertically adjustable plate is arranged at the back of the box, to increase or diminish the space between its upper edge and the top plate of the stove, thus regulating the amount of heat passing rearwardly. The improvement is also readily applicable to the ordinary forms of stoves for heating purposes.

EXHIBIT OF JARECKI MANUFACTURING COMPANY.

Jarecki Manufacturing Company, Limited, of Erie, Pa., had an exhibit of pipe-threading tools, malleable iron fittings, cast iron fittings, iron body globe, angle and gate valves, steam brass work, etc.

Their exhibit was very tastefully arranged, the large pipe threading and cutting machines being placed along the sides of the space, while in the rear a pyramid had been built to hold malleable fittings. A unique arch constructed of cast iron pipe fittings was built across the rear, towering above the pyramid.

The machines shown are designed to cut and thread pipe from ⅛ to 16 inches in diameter. They were operated in a variety of ways. Some were driven by hand, others by electric motors, some by belt from the Exposition power plants, and others had engines attached to furnish the power. They were shown in actual use, and received much commendation from pipe fitters for their ease of adjustment, convenient arrangement, and good work. The dies are quick opening and adjustable, each set of four pieces cutting two sizes of pipe. A large assortment of Jarecki screw plates and pipe cutters was also shown.

One of the features of the exhibit was a large showcase containing highly polished specimens of globe, angle, check valves, radiator valves, steam cocks, and numerous other steam and water appliances.

A CHEAP AND SIMPLE THILL SUPPORT.

This improvement, patented by Mr. Adolph Meyerhoff, of No. 301 East 83d Street, New York City, may be attached to any vehicle, to hold the thills or pole up as desired, either in an upright or nearly vertical position, as may be convenient, when the vehicle is to be stored, or at about the normal height, to relieve the horse of their weight. Upon the thills or pole are eye-bolts, or keepers, in which slide rods having each a head at its front end engaging the forward keeper, the inner end of the rod being attached to a chain extending rearwardly through the other keeper. Upon metal straps secured to the braces of the running gear, or in other convenient position, are hooks, to which the chain is made fast by one of its links, according to the height at which it is desired to hold the thills, the engagement of the head of the sliding rod with the outer keeper and the straightening of the chain holding the thills in the desired position.

Florida Ants.

There are more ants to the square mile in Florida than in any other country in the world. There are ants that will measure more than half an inch in length, and then there are ants so small that they can scarcely be seen to move with the unaided eye. There are red ants and black ants and troublesome ants. But as bad as they are, I have never heard of them eating out the seat of a man's trousers, as a missionary, the Rev. Mr. Wilson, once told the writer he saw the army ants do in India while the man was sitting on the earth for a few minutes beside him.

But the Florida ants will take out the lettuce and other minute seeds from the soil in which they are planted and actually destroy the beds. They will suck the life out of acres of young cucumbers and melon plants, uproot strawberry plants or cover the buds with earth to such an extent as to kill them. They will get into pie, pickle, sauce, sirup, sugar; on meat, in hash; will riddle a cake or fill a loaf of baker's bread till it is worthless. All remedies failing, I took to baiting them near their nests with slices of meat, bones, apple and pear parings, and when I had from 50,000 to 100,000 out I would turn a kettle of boiling water on them. I have killed a during week over a million in the space of a quarter acre lot, and I have almost wiped them out. I had to do this to secure any lettuce plants, and many unobservant farmers complain of seedsmen when they should attribute their troubles to insects.—*Savannah News.*

A Royal Inventor.

According to the New York *Tribune*, Prince Louis of Battenberg has invented a signaling apparatus, which is now on trial in the Royal Sovereign, and has received notices of approbation from various competent naval judges. The contrivance consists of a sort of collapsible spheroid, capable of being opened and shut like an umbrella, visible at sea for a far greater distance than flags, by which Morse code signals can be made without difficulty. If Admiral Fairfax and the signaling department report favorably, it will probably be adopted, to the satisfaction of the inventor, who is said to have been helped by Captain Percy Scott, now employed on signal books at the Admiralty.

The Ark Beats All.

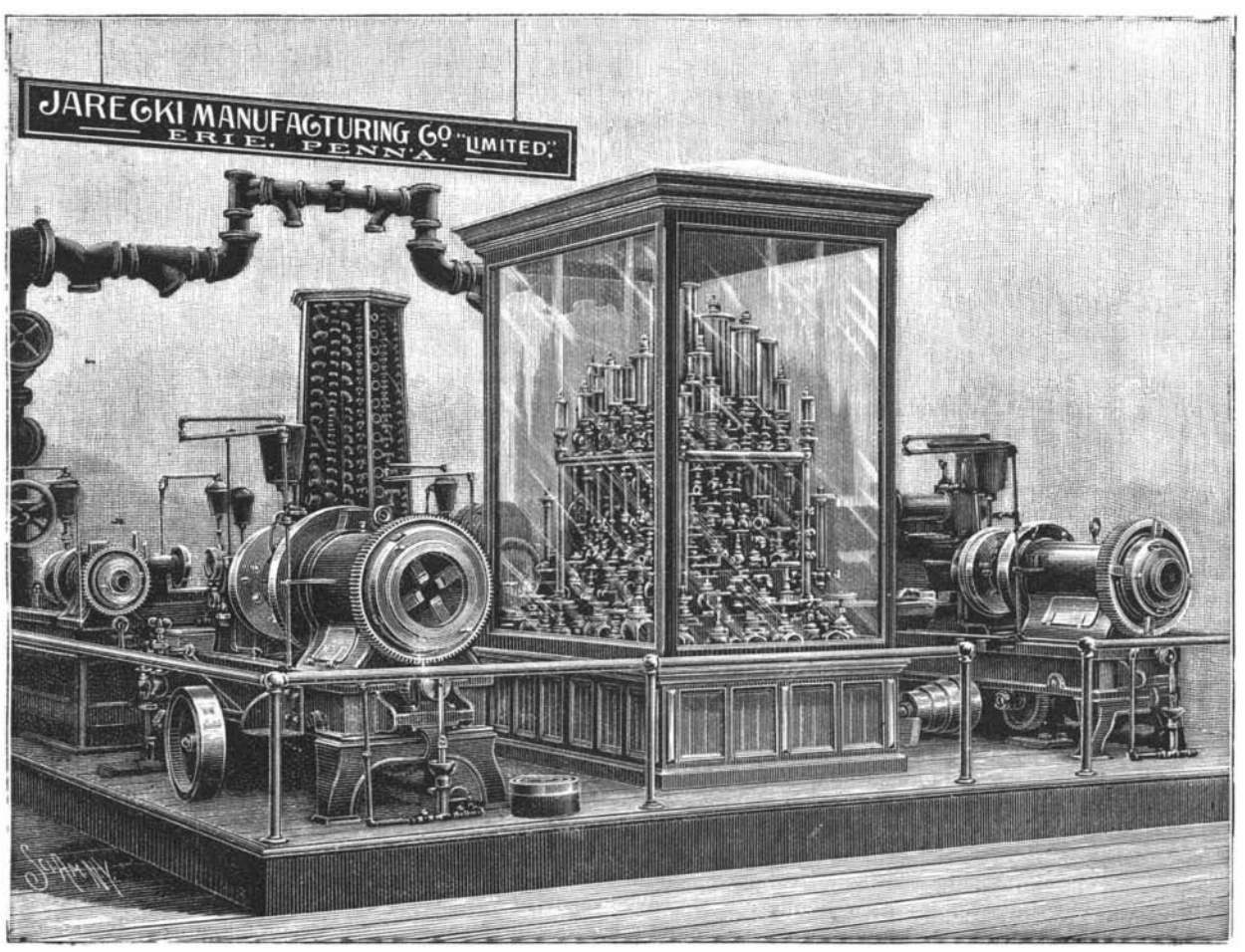
Speaking of ancient ships and shipbuilding, Prof. J. Harvey Biles said that, though Great Britain and America had made such great strides in shipbuilding, none of their wooden ships approached the dimensions of the Ark, which was 450 feet long, 75 feet broad, and 45 feet deep. He calculated that this was the size of this vessel from the Bible measurements, taking the cubit to be 18 inches. This, he thought, was the correct measurement. The largest wooden ship afloat now did not nearly approach the size of the Ark; the vessel was the Shenandoah, and her dimensions were 299 feet

MEYERHOFF'S THILL SUPPORT.

by 49 feet broad and 29 feet deep. Even the Campania was much smaller than the Ark, except in length, and the dimensions of the Ark had only been exceeded in the case of the Great Eastern. In 1856 a prize was offered for the best model of a ship made by any one in the United Kingdom, and the models were on view at the Royal Institution. The prize was awarded to a model six times the beam to the length, and ten times the depth to the length, these being the same proportions as those of the Ark.

The Waterbury Watch Company.

Those who remember the description of the wonderfully curious and ingenious century clock shown in the Waterbury pavilion, as described in the SCIENTIFIC AMERICAN of July 1, will be interested to know that the Waterbury Watch Company received a medal at the Columbian Exposition for their exhibit. The clock not only represented, through finely carved miniature figures, all the details of watchmaking, but it showed miners at work digging rock, illustrated the development of the sewing machine, the telegraph, the telephone, the dynamo, the preparation of cotton and flax, and numerous other highly interesting mechanical and historical subjects. The company's exhibit also included about five thousand watches, all of the quick-winding model, the old long-wind watch having been discontinued five or six years ago. As the rules governing awards declare that there will be but one class of medals, this award is equivalent to the highest class medal of other exhibitions. A diploma was also awarded the company for artistic display, for general exhibit, and for the remarkable and now famous century clock.



WORLD'S COLUMBIAN EXPOSITION—EXHIBIT OF JARECKI MANUFACTURING COMPANY.

How to Obscure the Taste.

It is said that the active principle of Gymnema sylvestris, gymnemic acid, $C_{32}H_{55}O_{12}$, is very efficient, and it is suggested that before administering bitter remedies, the mouth be rinsed with a 12 per cent solution of this acid in alcohol and water. Gymnemic acid is a grayish-white powder, of sharp acid taste, very soluble in alcohol, but only slightly so in water and ether, and when the tongue is touched with it, the taste is completely lost for sweet and bitter, though acids, salty, astringent, or spicy substances are readily recognized.