

FROZEN MEAT FROM THE ANTIPODES.

Last November a ship was laden in Australian ports with fresh meat for England, which it was expected would be kept from decay by a freezing process. Our last English mails bring accounts of the arrival of this ship at London and interesting details of the voyage and its results. It may be said in a word that the effort yielded success, and that meat slaughtered in Australia in November last was served on London tables during the first week in February in good, fresh, palatable condition. This certainly is one of the most notable events of the century, and one which will awaken the interest of stock breeders everywhere.

The vessel chartered for this experiment by the Australian government was a steamer, and her course lay through the Suez canal and the Mediterranean. The work of shipping began on November 18th at Sydney. The beef was taken in at a temperature of 70° Fah., and that on this day the maximum temperature in the meat chamber in the ship was 26° and the minimum 2° Fah. On November 29th the ship left Sydney, the temperature of the sea water being 69°, the maximum in the chamber 23° and the minimum 16°. Four days were passed at Melbourne, where more sheep were taken in. Here the temperature of the sea water was 61°, the maximum in the chamber on December 4th being 32°, and the minimum 6°. Leaving Melbourne on December 6th, the temperature of the sea water rose on some days to 83°, while the highest point reached by the thermometer in the chamber was 26°, and the minimum 5°. At Aden, January 7th, the temperature of the sea water was 78°, the maximum in the chamber 21°, the minimum 5°. At Suez, January 14th, the temperature of the sea was 62°, the maximum in the chamber 23°, and the minimum 3°. At Gravesend, February 1st, the temperature of the water was 40°, the maximum in the chamber 27°, and the minimum 9°. During the voyage, however, the machine was only worked for about five hours a day. No difficulty was experienced during the voyage through the Indian ocean and by the Suez route, though naturally some had been apprehended, 23 days being spent in the tropics.

Concerning the condition of the meat when it reached the London butchers' stalls, all reports which we have received agree. It was frozen solid, and when first taken to the stalls "sawed up like so much stone." In appearance it was excellent. It sold readily, and samples cooked for the purpose of satisfying experts and reporters were pronounced very good, in some respects equal to the freshly slaughtered beef and mutton of the English butchers.

This result was gained by a process of freezing induced by the compression and expansion of air by the aid of a steam engine and air pumps. The freezing processes by the use of chemicals are regarded unfavorably by ship-owners, because of the anticipated danger to vessel and its general cargo, but the compressed air process is unobjectionable.

This new experience in the furnishing of fresh meat to England is calling for a recasting of coat of production both among English cattle growers and meat shippers from our Atlantic ports. It is claimed that beef can be profitably produced in Australia at 1 to 1½d per pound, and shipped by the freezing process so that it can be laid down in England for 2d per pound. That sold from the experimental cargo brought 5 to 5½d per pound. There was about 35 tons of the meat sold at these figures. There was also 2 tons of butter sold at 13½d per pound.

GRAMMAR.—Invalid: "I've had a wretched night, Mrs. Wobbles." Nurse: "Dear, dear me, sir! I thought you slept most comfortable!" Invalid (with a groan): "Oh, Mrs. Wobbles, do use the adverb!" Nurse: "Yes, sir, I'll see about it directly, sir,—but"—(puzzled)—"I really don't think there's one in the 'ouse, sir!"

A NEW WAY OF STUDYING SOUNDS.—The London Times reports that a new and simple way of producing colored rings, which seems capable of some interesting applications, has been recently brought to public notice by M. Guebbard. A saucer filled with not very pure mercury is all the apparatus required. Then clear off with a piece of card or paper the thin pellicle of oxide and dust, breathe on the bright surface, and a magnificent system of colored rings is given by the film of condensed moisture then formed. Instead of four or five "irises" described by Newton, six or seven can be well made out, and the thickness of the film increasing from the border inwards, the order of hues

THE COFFEE PLANT.

The coffee tree, according to Rhind, is of low stature, seldom exceeding 12 feet in height; slender, and at the upper part dividing into long trailing branches. The bark is almost smooth, and of a brown color. The leaves are elliptical, smooth, entire, pointed, wavy, three to four inches long, placed opposite on short foot stalks. It is evergreen. The flowers are white, in form not unlike the flowers of the jessamine. They are axillary on short foot stalks; or sessile, two or three together. The calyx is very small, tubular and fine toothed. The corolla is monopetalous, funnel-shaped, cut at the limb into five reflexed, oval or lanceolate segments. The fruit which succeeds is a red berry, resembling a



THE ARABIAN COFFEE PLANT—Coffea Arabica.

is reversed. Still better effects can be got by dropping volatile substances (as petroleum oil) on the mercury surface, instead of breathing on it; but the most remarkable results are had with the collodion. Diluted with ether, this gives pellicles on the mercury, which may be detached (after their thickness and colors have been regulated at will) and transferred to paper. M. Guebbard has utilized these effects in study of the sounds of the voice. Vowel sounds uttered above the moistened mercury surface produce characteristic ring figures which throw new light on the nature of the vibrations involved. The vibratory state, indeed, for vowel sounds, appears to be often very complex, the figures presenting groups of several ring systems, indicating several centers of percussion.

cherry, and having a pale, insipid and somewhat glutinous pulp, including two hard oval seeds, which are the coffee of commerce.

OCHRE, the artist, went with his wife to get her some shoes. You know the sizes are marked on French-made shoes in centimeters, so that what in America would be about No. 4, in Paris is No. 40, and so on up. Mrs. Ochre tried on a pair of good proportions, for she is hardly a Cinderella. "Well!" exclaimed Ochre, looking at the mark, I knew, my dear, that you had a big foot, but I never supposed that you wore 40s.

THE wind always finds something to blow about, even if it only blows about one's ears.