

The Meat Exports of the Argentine.

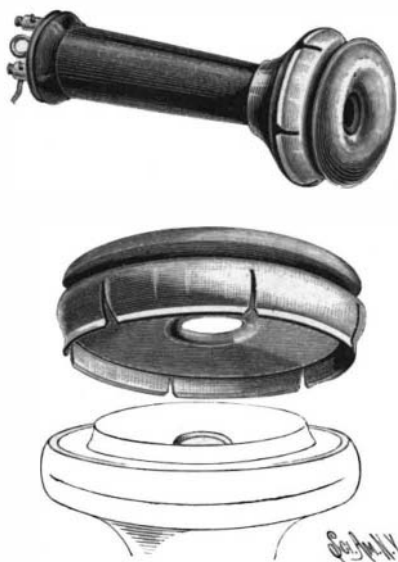
Last year England imported from abroad live stock and dead meat valued at something in excess of \$116,000,000. To the items which made up this large total the Argentine Republic contributed 1,675,600 frozen sheep, 90,000 live sheep, 29,000 quarters of frozen beef, and 28,000 live bullocks. It is alleged by those who have practical experience of the matter that in no other country in the world can cattle and sheep be produced and fattened as cheaply as in the Argentine, on account of its exceptional climate and rich natural grasses, very little artificial food being required, and the winter being so mild that the animals can be fattened in the open air in wire-fenced paddocks. During the last 15 years the best English pedigree cattle have been introduced, thousands of Shorthorn and Hereford bulls have been used, and a great proportion of the criollo cattle have been transformed into magnificent crossbreds. The heaviest of the native criollo cattle are kept on alfalfa in the provinces of San Juan and Mendoza for some time, and are then driven across the Andes into Chile. A better class of animal, cross-bred, weighing on an average about 1,150 lb. live weight, is sent to Rio de Janeiro and some other Brazilian ports, while the best, heaviest and fattest animals are shipped to England. This export of live stock has suddenly become of great importance, the official value of live cattle and sheep exported from Argentine ports in 1894 being over \$5,000,000. The English butchers find fault with the Argentine cattle as shipped at present. They are too wild, and are badly selected, cattle of all ages, sizes, and descriptions coming together. Moreover, they are purely grass-fed, and consequently the beef, though good, has not as bright a color as the North American corn-fed meat, and sells at from ½d. to 1d. per pound lower than its great rival. The sheep are better, and the butchers classify them the same as Canadians, and pay the same price for them—6d. per pound, sinking the offal.

Frozen Pneumatic Tubes.

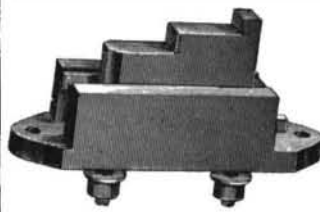
During the recent frost in London the proper working of the pneumatic tubes connecting the Central Telegraph Office with the various City and West End receiving and branch offices served by tube has caused great anxiety to the postal telegraph officials. A large number of carriers have from time to time been stopped in the tubes owing to the accumulation of ice, and these have in a few cases been freed only after considerable trouble. Many of the tubes were kept open night and day, and a current of air kept flowing through them. This air, heated by compression in the pumps, has been a very great help. In the event of a carrier stopping in the tube, another carrier partly filled with salt has been sent after it. The impact causes the salt to scatter against the imprisoned carrier, and the non-freezing mixture so formed quickly sets it free.

A CUSHIONED EAR PIECE FOR THE TELEPHONE RECEIVER.

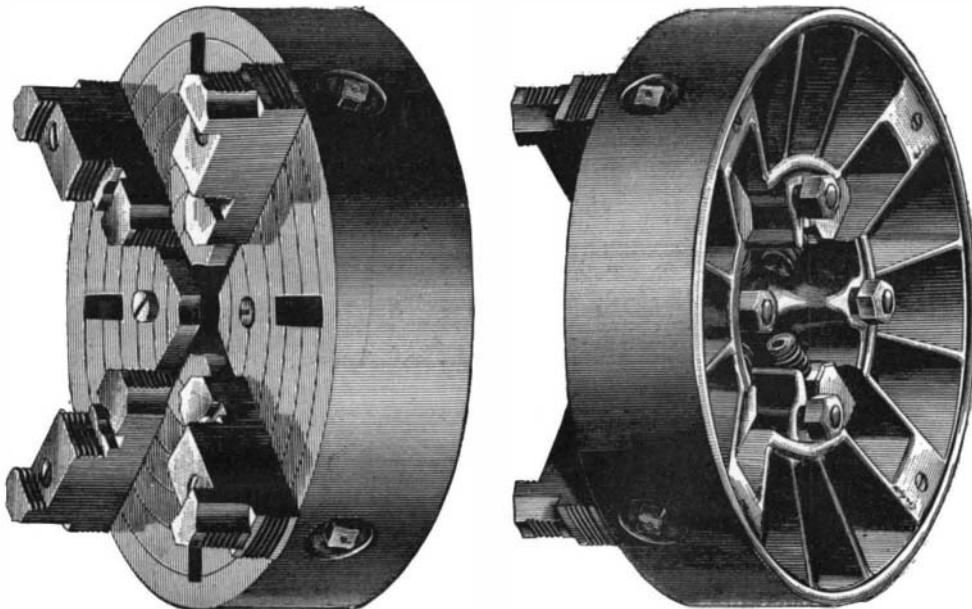
The illustration represents a simple pneumatic cushion adapted to fit all telephone receivers, and indicates the manner of placing it upon receiver. It is made of soft rubber, fitted into a metal rim which springs or clamps over the end of receiver, forming a complete air chamber designed to effectually prevent the buzzing or clucking sounds so annoying to users of the telephone. The improvement is being introduced by Mr. C. Maynard Evans, 107 to 109 World Building, New York City. Its touch to the ear is soft, and the distance to the ear drum is more conveniently regulated than with the ordinary hard rubber receiver. It has been adopted and is in use in many of our banks and public offices, scores of large new office buildings, etc.

**A NEW CHUCK.**

The illustration represents an improved chuck for heavy work, having a larger number of shell braces, a thicker face to the shell, and a greater depth to the chuck than the "National chuck," made by the same manufacturer, William Whitlock, of No. 39 Cortlandt Street, New York City. The dishing of the braces is such that the chuck may be mounted close to the bearings of the lathe, causing the least possible overhang, and the screw heads are recessed, so the workman can stop the chuck by the rim without injuring his hand. It has a reversible jaw. The small figure shows a new face plate



FACE PLATE JAW.

FACE VIEW. BACK VIEW.
WHITLOCK'S NEW "WESTERN" INDEPENDENT CHUCK.

jaw of the same manufacturer. It carries the regular "National" solid jaw, and is designed to take the place of the larger chucks where the character of the work permits of its use.

A SECTIONAL WATER TUBE BOILER.

In this boiler are embodied the following essential points: It is simple in construction; is easily repaired by any ordinary mechanic; affords perfect circulation; has a large amount of heating surface in proportion to its weight. All parts are readily accessible for repairs and cleaning, and it is non-explosive. It has been patented by Mr. Samuel P. Hedges, of Greenport, L. I., N. Y. The boiler has two mud drums, into which the vertical sections of the fire box tubes are tapped, horizontal sections forming the crown of the fire box, and being tapped into a fire box header or drum, which connects with a cross drum. On each end of the cross drum is a pipe connecting with the mud drums. This pipe is to supply the heating section farthest away from the center, where supply enters from fire box drum. The small figure represents the manner of connecting the heating sections to the cross drums. The flanged end on the tube enters the socket formed in the header and seats on an asbestos ring. The sleeve on pipe is screwed into the boss on the flanged end of tube, thus making a tight, strong joint. This connection at top and bottom of each section makes it easy to remove and replace any section that may require repairs and take it out into the fire room through the front connecting doors without disturbing any part of the casing, or a washer may be put in the opening and the collar screwed down while repairs are being made, without affecting the operation of the boiler. Feed water heaters are placed on the top of heating section (not shown in cut) of such size as to allow the feed water to enter the boiler at the boiling point. These boilers are designed for 200 lb. steam pressure.

A CURIOUS fact has been noted by Arctic travelers—snow when at a very low temperature absorbs moisture and dries garments.

The Illinois Eight Hour Law.

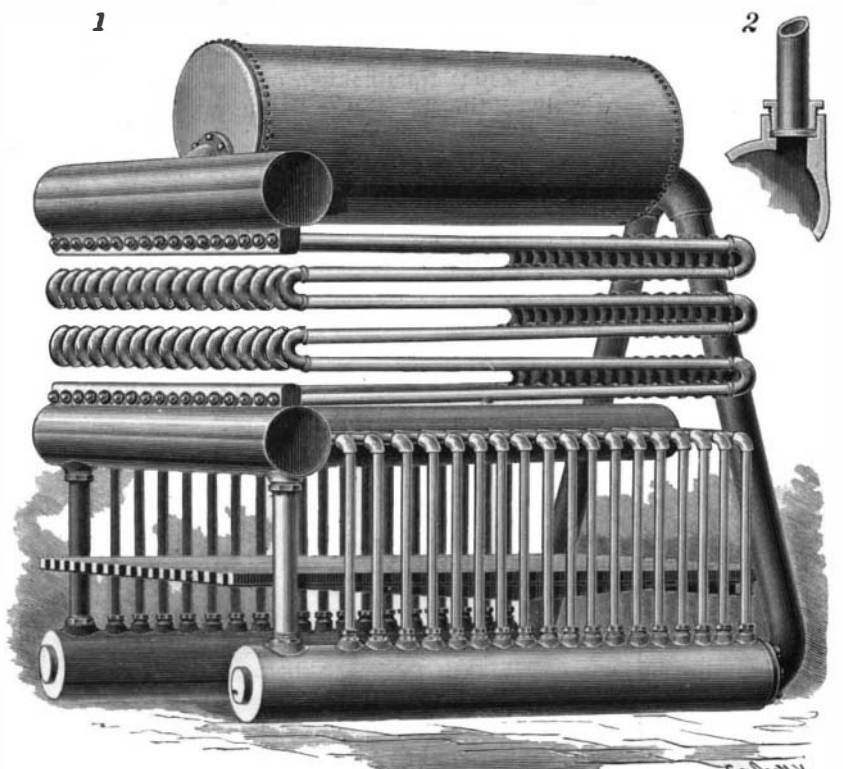
The Supreme Court in Illinois has declared the eight hour law of that State unconstitutional, and a similar decision against the progressive inheritance tax of that State. As to the Ohio decision, we have not yet seen any report full enough to enable us to pass judgment upon its merits. The Ohio law, it will be remembered, levied a tax ranging from 1 per cent on estates above \$20,000 to 5 per cent on estates above a million. But the fact that the law was good does not indicate that the decision against it was bad, for the Ohio constitution contains a general provision that citizens shall be taxed in proportion to their property, and this inheritance tax law may run counter to the phraseology of the constitution. The Illinois decision is of greater importance, because the principles laid down by the law provided that no woman should be employed in any factory or workshop more than eight hours in any one day or forty-eight hours in any one week. The court held that "This re-enactment is a purely arbitrary restriction on a fundamental right of the citizen to control his or her own time and faculty. It substitutes the judgment of the legislature for the judgment of the employer and employe in a matter about which they are competent to deal with each other. . . . The right to make contracts is an inherent and inalienable one, and any attempt to unreasonably abridge it is opposed to the constitution." The court also condemned the act because it applied only to women, and seemed to apply only to certain occupations.

Darwin G. Eaton.

Dr. Darwin G. Eaton died in Brooklyn, N. Y., March 17, at the age of seventy-three years. He was one of the best known teachers in the country, and for many years he was the leading professor in the Packer Institute, of Brooklyn. As a scientist Dr. Eaton will be chiefly

remembered for his researches on volcanoes, as he made a life-long study of them, and visited Vesuvius several times, as well as Mauna Loa. He was born at Portland, N. Y., and graduated at the State Normal School in 1846. In 1851 he accepted a professorship in the Brooklyn Female Academy, which afterward became the Packer Institute. He held this place until 1883, when ill health compelled him to retire. He had been devoted to astronomical studies all his life, and had participated in many governmental scientific observations of solar and lunar eclipses. He was a member of many learned societies, and received the degrees of M.A., M.D. and Ph.D.

MR. GEORGE P. LOW, in the February issue of the Transactions of the American Institute of Electrical Engineers, concludes that the art of rail bonding now appears to have been perfected, and the damage that



HEDGES' WATER TUBE STATIONARY OR MARINE BOILER.

has been caused by corrosive electrolysis may be attributed to defective bonding, for without doubt proper main-to-track, rail-to-rail, and track-to-dynamo bonding will cure the ill almost without exception. The problem of eliminating electrolytic corrosion is, in brief, simply one of judicious bonding.