Commercial

(For week ending April 15.)

PRODUCE.

London, April 9.—Manitoba wheat is quoted at 3s 9d per bushel, and Argentine at 27s 3d per quarter, freight 16s 9d.

Butter (quiet) : New Zealand, new, 100s to 102s.

Cheese unchanged.

Frozen meat.—Sheep unchanged. Lambs : Canterbury light, 5 9-16d, heavy 5⅜d ; Dunedin and Southland, 5¼d ; North Island, 5⅛d. New Zealand beef (nominal): Fores, 3½d ; hinds, 4¼d. River Plate beef : Fores, 3⅜d ; hinds, 4⅛d.

SOUTHLAND PRODUCE MARKET.

Invercargill prices current :—Wholesale—Butter (farm), 8d ; butter (factory, bulk, 11d ; pats, 11½d cash, 11⅝d booked. Eggs, 1s 3d per dozen. Cheese, factory, 6¼d. Hams, 9d. Potatoes, £3 per ton (bags weighed in). Barley, 2s to 2s 6d. Chaff, £5. Flour, £10 15s to £11 15s. Oatmeal, £11 10s to £12. Bran, £4 10s. Pollard, £6 10s. Retail — Fresh Butter, 10d. Butter (factory), pats, 1s 1½d ; bulk, 1s. Eggs, 1s 6d. per dozen. Cheese, 8d. Bacon, 11d. Hams, 10d. Potatoes, 4s 6d per cwt. Flour, 200lb, 23s 6d ; 50lb, 6s 6d. Oatmeal, 50lb, 7s ; 25lb, 3s 6d. Pollard, 10s 9d per bag. Bran 5s 6d. Chaff, 3s.

Mr. F. Meenan, King street, Dunedin reports :—Wholesale prices only—Oats : Milling, 1s 9d to 1s 10d ; feed, 1s 7d. Wheat: Milling, 4s 2d to 4s 4d; fowls' wheat, 3s 6d to 4s 1d. Potatoes: Derwents, £3 10s; kidneys, £2 10s to £3. Chaff : Old, £2 10s to £3 5s ; new, £3 5s to £3 15s. Straw : Pressed wheat, 30s ; oaten, 35s ; loose, £2. Flour : Sacks, £10 ; 50lb, £10 15s ; 25lb, £11. Oatmeal, 25lb, £11. Bran, £4 10s. Pollard, £5 10s. Butter : Dairy,8d to 10d ; factory, 11d. Cheese, Old, 6½d; new, 5½d. Eggs, 1s 6d. Onions: Melbourne, £5 10s; Christchurch, £4 15s.

Messrs. Donald Reid and Co. report as follows :—

We held our weekly auction sale of grain and produce at our stores on Monday, when we submitted a moderate catalogue to a good attendance of buyers, and under fair competition the bulk of the catalogue was cleared at satisfactory prices.

Oats.—During the past week practically no business has been passing, and shippers show little inclination to purchase at present quotations, in view of the lower prices ruling at northern ports. Very few oats have come to hand this week, and quotations remain practically unchanged. We quote : Prime milling, 1s 9d to 1s 9½d ; good to best feed, 1s 7d to 1s 8d ; inferior and medium, 1s 5d to 1s 6½d per bushel (sacks extra).

Wheat.—There is little inquiry for prime quality. Owing to uncertainty as to the price of flour, millers are not inclined to operate to any great extent. Fowl wheat, however, is still scarce, and meets with ready sale at late quotations. We quote : Prime milling, 4s 2d to 4s 4d ; medium, 4s to 4s 1d ; whole fowl wheat, 3s 11d to 4s ; broken and damaged, 3s 3d to 3s 10d per bushel (sacks extra).

Potatoes.—Supplies continue to come forward steadily, and are readily sold at prices on a par with late quotations. We quote : Best Derwents, £3 5s to £3 10s ; medium to good, £3 to £3 2s 6d ; other sorts, £2 15s to £3 per ton (bags in).

Chaff.—Heavier consignments have come forward during the past few days, and prices have receded 5s to 7s 6d per ton in consequence. Very little old chaff is now on hand, but is rather slow of sale, preference being given to prime bright new chaff. We quote Prime oaten sheaf, £3 5s to £3 7s 6d ; medium, £2 15s to £3 2s 6d ; inferior and straw chaff, £2 10s to £2 12s 6d per ton (bags extra).

WOOL.

London, April 9.—The Bradford wool market is strong, and there is a better demand in most directions. Sixties, 24½d.

LIVE STOCK.

ADDINGTON STOCK MARKET.

There was a full yarding at Addington Market—20,000 sheep, 550 cattle, and 400 pigs being penned. There was a good attendance of buyers, but the sale was not finished till after dark, and the two last pens of sheep suffered in consequence.

Fat Cattle.—194 head yarded, principally light heifers and cows. There was a good demand at late rates. Steers fetched £6 17s 6d to £9 10s ; heifers, £5 15s to £8 15s ; cows, £5 5s to £9 7s 6d ; beef, 24s to 27s per 100lb.

Fat Sheep.—The yarding included a good proportion of first-quality wethers and ewes. Prime wethers were keenly competed for, and sold readily at recent rates ; but export buyers neglected ewes, and values eased in consequence. Towards the close of the sale the attendance of buyers was small, and as a result a number of good lines were passed unsold. The range of prices was : Best freezing wethers, 17s to 18s 6d ; heavy wethers, to 19s 11d ; light wethers, 14s to 16s 6d ; maiden ewes, 14s 5d to 16s 10d ; freezing ewes, 11s to 14s 6d ; butchers' ewes, 9s 6d to 16s 7d ; extra heavy, to 19s 6d.

Fat Lambs.—The 2839 entered included a large proportion of hardly prime, and for these the sale was dragging. For all fit for freezing there was good competition, though prices were a shade easier than at last week's sale. Freezers fetched 12s 6d to 14s 10d ; tegs, to 15s 7d ; butchers', 11s to 13s 6d.

Pigs.—A good entry, which included a number of first-class quality baconers and porkers. Competition was not particularly keen, and prices all round were inclined to be irregular. Choppers brought up to £4 7s 6d ; baconers, from 46s to 68s—equal to from 5d to 5½d per lb ; porkers, from 28s to 45s—equal to 5½d to 6d per lb. Stores were hard to sell, prices ranging from 18s to 30s, and for weaners from 6s to 10s.

How Thermometers are Made

The making of a thermometer may be either a delicate scientific operation or one of the simplest tasks of the skilled mechanic, according to the sort of thermometer made (says the London 'Express'). With the extremely sensitive and minutely accurate instruments designed for scientific uses great care is taken, and they are kept in stock for months, sometimes years, to be compared with instruments that are known to be trustworthy. But so much time cannot be spent over the comparatively cheap thermometers in common use, and these are made rapidly, though always carefully.

Mercury is generally used for scientific instruments, but most makers prefer alcohol, because it is cheaper. The alcohol is colored red with aniline dye, which does not fade. The thermometer maker buys his glass tubes in long strips from the glass factories. The glassblower on the premises cuts these tubes to the proper lengths, and with his gas-jet and blow-pipe makes the bulb on the lower end. The bulbs are then filled with colored alcohol, and the tubes stand for 24 hours. On the following day another workman holds each bulb in turn over a gas-jet until the colored fluid, by its expansion, entirely fills the tube. It then goes back into the hands of the glass-blower. He closes the upper end and turns the tip backward to make a little glass hook which will help keep the tube in place in the frame.

The tubes rest until some hundreds of them, perhaps thousands, are ready. Then the process of gauging begins. There are no marks on the tube, and the first guide mark to be made is the freezing point, 32 degrees Fahrenheit. This is found by plunging the bulb into melting snow. No other thermometer is needed for a guide, for melting snow invariably gives the exact freezing point. This is an unfailing test for any thermometer when accuracy may be suspected. But melting snow is not always to be had, and a little machine resembling a sausage grinder is brought into use. This machine shaves a block of ice into particles, which answer the purpose as well as snow. When the bulbs have been long enough in the melting snow, a workman takes them one by one from their bath, seizing each so that his thumb-nail marks the exact spot to which the fluid has fallen. Here he makes a scarcely perceptible mark upon the glass with a fine file, and goes on to the next.

The tubes, with the freezing point marked on each, now go into the hands of another workman, who plunges the bulb into a vessel filled with water, kept constantly at 64 degrees. Another tiny file scratch is put at 64 degrees.

Then a third workman plunges the bulbs into another vessel of water, kept constantly at 96 degrees. This is marked like the others, and the tube is now supplied with these guide marks, each 32 degrees from the next.

With its individuality thus established, the tube goes into the hands of a marker, who fits its bulb and hook into the frame it is to occupy and makes slight scratches on the frame corresponding to the 32 degrees, 64 degrees, and 96 degrees marks on the tube.

The frame, whether it be wood, tin, or brass goes to the gauging-room, where it is laid upon a steeply-sloping table, marked exactly in the position for a thermometer of that size.

A long, straight bar of wood or metal extends diagnally across the table from the lower right hand corner to the upper left hand corner. On the right this rests upon a pivot, and on the left it rests in a ratchet, which lets it ascend or descend only one notch at a time. Each notch marks the exact distance of two degrees.