

Miscellaneous.

THE GREAT BELL FOR ST. PAUL'S.

The large bell manufactured by Messrs. Taylor, of Loughborough, Leicestershire, for St. Paul's Cathedral, arrived in London on Monday, May 22, having been eleven days on the road, drawn by a traction-engine a hundred and fifteen miles. The contractors for the safe conveyance of this ponderous bell were Messrs. Coles and Matthews, of Coventry, who have performed their task with entire success. The bell weighs nearly seventeen tons, and stands above nine feet high, with a circumference of thirty feet at the rim. It was placed on a massive trolley, with low iron wheels of great width, the weight of the trolley and bell together being not less than twenty-two tons. A traction-engine took the heavily-laden carriage in tow; another engine drew a covered van, or hut on wheels, stored with jacks and engineers' tools of all kinds, for raising or repairing the trolley, in case of need. Attached to the rear of this travelling tool-house, which served also to shelter the men at night, was a cultivator, made for steam plowing, laden with boiler-plates, which could be laid down to assist in getting the wheels of the trolley over soft ground. Last of all, came a cask-shaped tank, to supply the two engines in traversing country where water might be scarce. The strange procession excited great curiosity and wonder in the rural districts of Northamptonshire, Bedfordshire, and Hertfordshire. In some places the local volunteers' band turned out. The bell was piloted along the road by Mr. R. Coles, riding on a tricycle, and accompanied by Mr. Taylor, with several London newspaper correspondents and others.

On Saturday afternoon, having arrived near Highgate, on the road from Finchley, the bell was met by thousands of Londoners, who came up the Archway Road to witness such an unusual spectacle. It was taken into the coalyard of the Great Northern Railway at the Woodman Station, and was left there till Monday morning, when it was brought at an early hour into London, reaching St. Paul's Churchyard at eight o'clock. The arrangements made by Mr. Penrose, architect and surveyor to the Dean and Chapter of St. Paul's, for removing the bell from its travelling-carriage and introducing it within the south tower of the west front of the Cathedral, were not the least remarkable part of the undertaking. Some difficulty had been presented by the fact that the doorway into the tower proved too narrow by about 2½ feet, and the solid stone walls had to be cut away on each side, near the ground, while the masonry above had to be shored up with great care and ingenuity. Between this door and the spot at which the bell-carriage was drawn up, an elaborate timber slope had been constructed of beams 12 in. or 14 in. square, surfaced with slabs of oak, rendered slippery by a smearing of tallow and black lead. On to this slope the bell was dragged by the force of ropes and crabs or windlasses, but resting upon a circular wooden disk, to which it was fastened. The bell was thus enabled to slide slowly down in front of the door, and was then dragged up another short incline into the center of the tower. The machinery for lifting the bell to a height of 125 feet in the tower was very simple, consisting of two "crabs" from Woolwich Dockyard, each worked by four men, two men at each handle, to haul the ropes, 2½ in. thick, through a series of blocks and pulleys, two above and two below. The operation would be done very slowly, but was expected to be performed on Wednesday or Thursday. There is a clear passage for the bell up the center of the winding staircase in the tower. Its destined position is beside the clock, and below the present big bell of St. Paul's, which strikes the hours.—*London Illustrated News.*

FRAUDULENT INFANT FOODS.

There are about twenty European preparations styled infant foods, beginning with that of Nestle, and at least twice as many American, all of which profess to furnish a complete nutrition for the infant during the first few months of its existence, while yet the conversion of starch into dextrine and sugar is beyond the capacity of the untrained digestive function. The examination of these with the microscope, assisted by such simple tests as iodine, which turns starch cells blue, and gluten (or albuminous) granulates yellow, has engaged the careful attention of Dr. Ephraim Cutter, of Cambridge, and his results will startle most mothers who have relied upon the

extravagant pretenses set forth in the circulars of manufacturers.

Eliza McDonough who preceded Dr. Cutter in this field, has been in a measure discredited; but it appears that her assertion—that the starch, so far from being transformed into dextrine, was not sufficiently altered to render the recognition of its source difficult, whether from wheat, rye, corn, or barley—was strictly true, and that these pretentious foods are, without exception, nearly valueless for dietetic purposes. All of them consist of baked flour mainly, either alone or mixed with sugar, milk, or salts. In some cases, the baking has been very inadequately performed, and the doctor found one that consisted merely of wheat and oats whose starch cells were proximately in their natural condition.

The general result of Dr. Cutter's examination may be stated in brief terms as follows: There was scarcely a single one of the so-called infant foods that contained a quantity of gluten as large as that contained in ordinary wheat flour. That is to say, a well-compounded wheat gruel is superior to any of them, particularly when boiled with a little milk: and mothers are in error who place the slightest dependence upon them. As respects one very expensive article, professing to possess 270 parts in every 1,000 of phosphatic salts in connection with gluten, Dr. Cutter was unable to find any gluten at all. The thing was nearly pure starch, sold at an exorbitant price as a nerve and brain food and a great remedy for rickets. So all through the list. Sometimes a trace of gluten was present; more frequently none at all. In one case there were 90 parts of starch to 10 of gluten; but this was exceptional, and the majority were less valuable, ounce for ounce, than ordinary wheat flour. Considering the semi-philanthropic pretensions that have been put forth by the manufacturers of these foods some of them sustained by the certificates of eminent physicians, the report of Dr. Cutter is one of the dreariest comments upon human nature that has recently fallen under the notice of the journalist. But if the revelations he has made of fraud and pretense on the part of manufacturers in this field shall serve to protect mothers from further betrayal and to rescue infant life from quack articles of nutriment, his work, though giving a tremendous shock to our sensibilities and to our faith in medical certificates, will not have been done in vain.—*N. Y. Times.*

CANADIAN EXPERIENCE WITH CATTLE.

The superintendent of the model farm at Guelph, gives as below the results of some experiments made there in cattle breeding:

1. A steady frosty winter is better than an open one in feeding cattle.
2. An average two or three year old steer will eat its own weight of different materials in two weeks.
3. Two or three year old cattle will add one-third of a pound more per day to their weight upon prepared hay and roots than upon the same materials unprepared.
4. It is 30 per cent more profitable to premature and dispose of fattening cattle at two years old than to keep them up to three years.
5. There is no loss in feeding a cattle beast well upon a variety of materials for the sake of manure alone.
6. Farmyard manure from well fed cattle three years old is worth an average of \$2.30 per ton.
7. A three year old cattle beast, well fed, will give at least one ton of manure every month of winter.
8. No cattle beast whatever will pay for the direct increase to its weight from the consumption of any kind or quantity of food.
9. On an average it costs twelve cents for every additional pound of flesh added to the weight of a two or three year old fattening steer.
10. In Canada the market value of store cattle can be increased 36 per cent during six months of finishing by good feeding.
11. In order to secure a safe profit, no store cattle beast, well done to, can be sold at less than four and one-half cents per pound (live weight).
12. In the fattening of wethers, to finish as shearings, the Cotswold and Leicester grades can be made up to 200 pounds, the Oxford Down 180 pounds, and the South Down (grade) 160 pounds each, live weight.
13. A cow wintered upon two tons and a half of hay will produce not far from five tons of manure, provided that she be well littered and none of the excrements be wasted.