

ments, although under the same roof. To trace the process of pottery-making from the outset is intensely interesting.

The branch first visited is that where the "potter's clay" is ground by a machine, the driving-wheel of which accomplishes 4,500 revolutions per minute. From the grinding machine the clay is carried by an elevator to a Haslam separator which thoroughly sifts the material and leaves no foreign matter behind. The clay is then placed in vats and soaked in water. That process being completed, it is taken to large brick-built air and water-tight chambers, where it is left for several months to mature. The clay is then ready for the potter's hand to fashion it into all sorts of curious

he could confidently assert that the Hutson pipes used in this work were second to none. The pipes supplied were of remarkable strength, and when subjected to tests gave the following results: 6-in. pipes, weighing 38lbs. (head in feet 92), stood an internal pressure of 40lbs. per square inch; 8-in. pipes, weighing 52lbs (head in feet 127), 55lbs. per square inch; 9-in. pipes, weighing 61lbs. (head in feet 92), 40lbs. per square inch; 10-in. pipes, weighing 77lbs (head in feet 115), 50lbs. per square inch; 12-in. pipes, weighing 101lbs. (head in feet 104) 45lbs per square inch. The capability of pressure stipulated in the contract was only 15lbs. per square inch (internally), but the figures given above show that that requirement was far exceeded by Messrs.

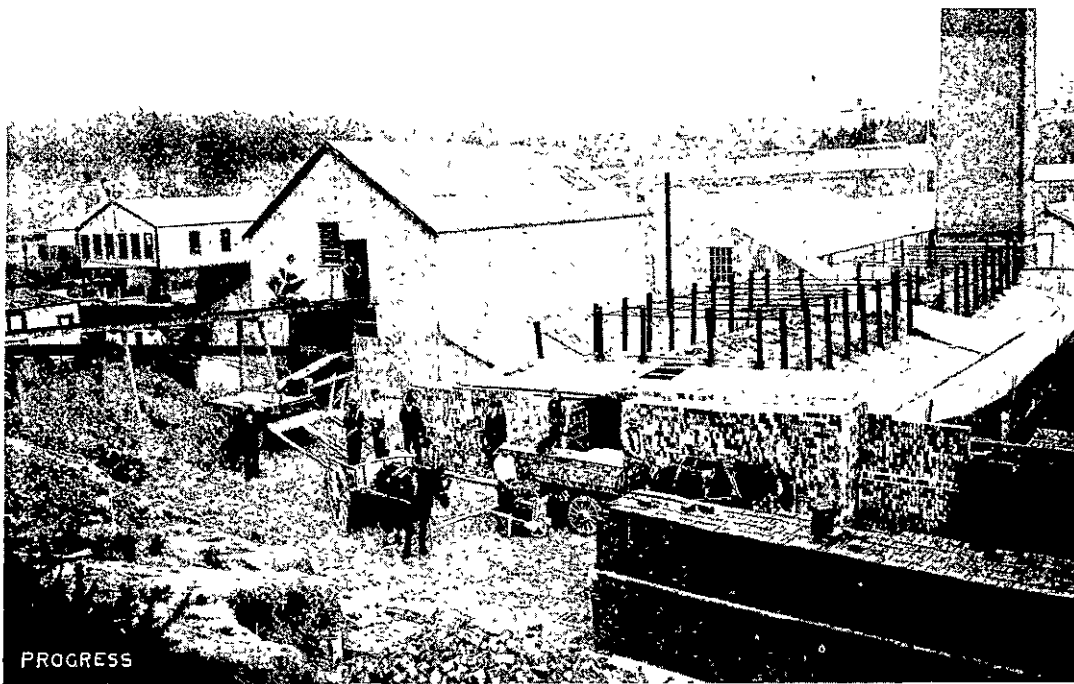
THE NEW BRICKWORKS AT NEWTOWN.

Owing to the increased demand for all kinds of goods at the pottery works, and the firm's inability to keep their customers supplied with bricks, they resolved some time ago to erect new brickworks at Newtown. These are now in full operation, and are well worth visiting. The works are replete with the latest and most improved machinery driven by electric-motor power, similar to that used at the pottery works. The method of brickmaking at Newtown is quite different to that of any other works in the colony. The materials used are a hard clay and shale which are first quarried and mixed with a proportion of clay, and then passed into a grinding pan, 9 ft. 6 in. in diameter, fitted with two large grinding rollers, weighing 3 tons each, which crush the shale and clay through fine perforated iron gratings. From the gratings the materials fall into a hopper, and are then conveyed by means of an elevator to the floor above. From there they are passed down into the brick machines. These machines are specially constructed to give great pressure, each brick being subjected to an even pressure of about 70 tons. This process dispenses with drying sheds, and enables the bricks to be taken from the machines to the kiln, the two machines being capable of turning out 10,000 bricks each in eight hours. This machinery was supplied by Messrs. Geo. Foster & Sons, of Sydney. A great advantage is claimed for bricks made under this system over the ordinary plastic bricks, inasmuch as the porosity of the shale brick is about 25% less than the plastic-made brick. This means that a brick house or store built with the shale-made bricks will be a considerably drier building than any other. Architects and engineers may themselves become conversant with tests that have been made from reliable sources, including a special test made at the Canterbury Engineering Laboratory.

Perhaps the most noticeable work in Wellington that has been executed entirely with these bricks is the residence of Mr H. P. Rawson, on Wellington terrace. This building has a particularly well-finished appearance, and in itself is a splendid testimonial to the merit of both the building and the face bricks. Dalgety & Co.'s new wool store also presents a fine appearance, the bricks showing up extremely well.

Amongst the contracts in which the Hutson face bricks only have been used may be mentioned the D.I.C., and Abraham & Williams's, and Murray, Roberts & Co.'s wool stores. Other important works carried out entirely with these bricks are:—Dr. Shand's residence, in Vivian street; S. Brown's building, in Johnston street; Crabtree's foundry; Luke's foundry; Menteath & Beere's building, Stout street; Lumsay's building, Woodward street; Jamieson Bros., Woodward street; additions to Wellington Hospital and Consumptive's Home; Catholic residence in Daniel street; Chinese Mission Home, Frederick street; while the building for the National Bank, Grey street, is being erected with these bricks, and for which over 200,000 bricks will be required.

The Firm have orders in hand for about half a million bricks on important works in Wellington



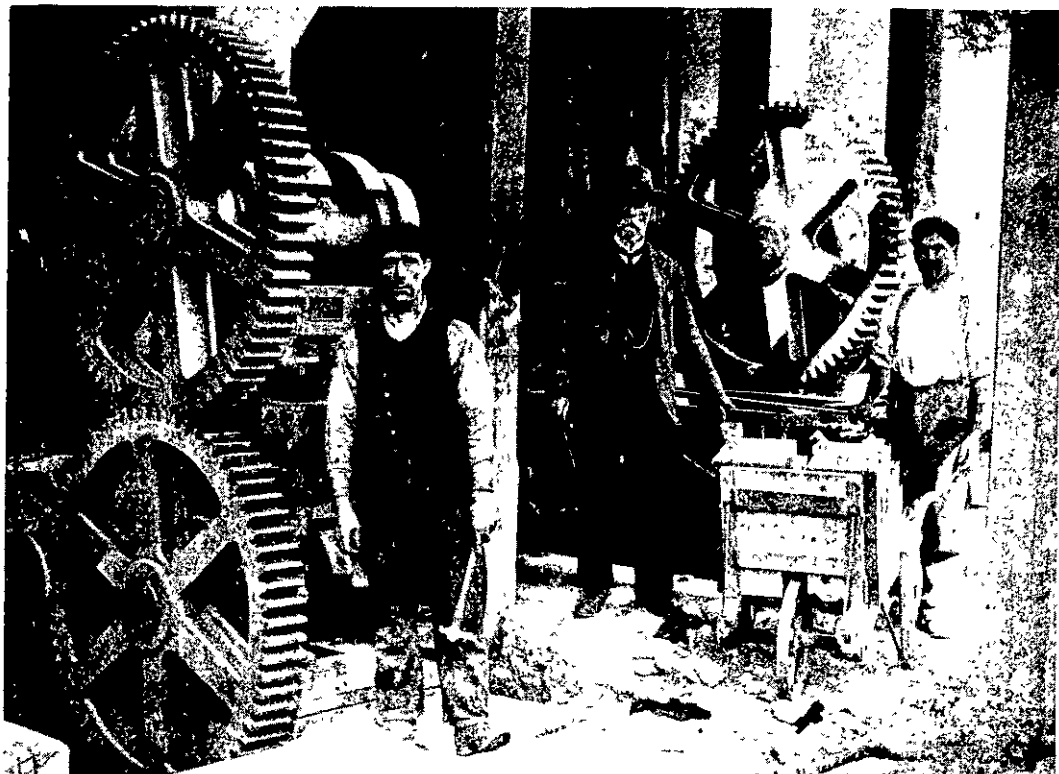
THE NEWTOWN WORKS OF MESSRS. P. HUTSON AND CO.

shapes and designs which serve for use or ornament, and sometimes for both. The main pottery department, where the interesting work of the potter is carried on, is situated in a two-storied building adjoining the brick manufacturing section and is divided into two departments, one measuring 48 ft. x 24 ft., and the other 68 ft. x 45 ft. in dimensions. The pottery establishment possesses three potter's wheels, and it is curious to relate that the same implement has been employed since the time of the ancient Egyptians. Modern science and invention have, however, greatly improved upon the ancient device which was worked by the hands or feet, the latest-improved contrivances being driven by electric motors. We may here mention that in order to keep abreast of the continuous demand for bricks that arose in the "nineties," extra power and machinery had to be installed. For some months before the new Company took over the concern, Mr. Hutson used a 24-h.p. electric motor to drive a part of the machinery. This had given such satisfactory results as to cost against steam, that he advised the Firm to dispose of their engine and boiler, and use electric motors for the whole of the plant. This was eventually done, so that now there are four motors running which possess an aggregate capacity of 70 h.p.

It is amazing to watch the rapidity with which the skilled craftsman can transform a shapeless lump of clay into a useful or ornamental article upon the potter's wheel. Jugs, jars, flower pots, some ornamented with beautiful designs, are moulded in a few seconds by the hand of the potter, and these articles are placed in the dry state in saggars, or fire-clay boxes which are put inside the kiln for the burning or hardening process. There is another plaster-of-Paris section in this part of the premises where all white enamelled chinaware is being made, and on the lower floor are the "dipping" or glazing departments kept artificially at a mean temperature of from 125 to 130 degrees Fahrenheit. In other chambers the work of glossing the pottery manufactures is carried on, and in this branch the Firm's employees have attained special merit, for the varied and interesting display of glossed pottery-ware in a show room attached to the premises is superior to anything we have seen. Here, also in the same section, are pedestal and w.c. pans in sanitary ware. It is interesting to note that the quality of the pipes turned out from these works is high enough to evoke very satisfactory opinions from well-known civil engineers. Mr. R. L. Mestayer declared some time ago, in the course of his long report on the Wellington drainage scheme, that he had used pipes manufactured by the best makers in England and Australia, and

Hutson. The Firm also supplied 12-inch pipes standing a pressure of 45lbs per square inch, for the Palmerston North waterworks, also the Hawera waterworks, the Hawera drainage scheme, and 12-inch pipes for the waterworks at Masterton North.

For the last two years Messrs. Hutson have been supplying the boroughs of Palmerston North and Feilding with stoneware pipes for local drainage schemes, it will take some months yet to complete these contracts. The Firm also secured the contracts to supply the Government Public Works Department and Wellington City Council with stoneware pipes and other goods, besides various supplies for County Councils and Road Boards, a state of things which keep them exceptionally busy at the Wallace street works, where there are some fifty hands in constant employment.



DRY PRESS BRICK-MAKING MACHINE AT NEWTOWN.