

Jackson & Macdonald—and the Rexionola Talking Machines

BY 'J.V.H.'

One day in November 1906, two young men, S.J. Jackson and D.S. Macdonald, arrived in Sydney from Melbourne, and before many hours had elapsed, had signed a lease of premises in Ash Street—then the music centre of Sydney. With visions of a wonderful future in the Talking Machine industry, which was then just emerging into the field of practical possibility, they had obtained a jobber's franchise for the pioneer Edison machines. From this humble beginning has grown the largest talking machine manufacturing business in the Commonwealth¹.



MR. S. J. JACKSON.

IN 1908 a move was made to larger premises in Druitt Street, which until recently, remained the headquarters of the firm.

Hard work, keen business judgment, and a policy of the best possi-

ble service, had in a few years built up the business to such a degree that in 1912, after six months of study and experiment, the momentous decision to start manufacturing talking machines of their own was arrived at.

Up till this time talking machine manufacturers all over the world had persisted in the 'tin horn' principle of sound chamber. The so-called 'hornless' machines were already coming into vogue, but the 'tin horn' was still present inside the cabinet.

The first Rexionola patent for a wooden sound chamber using the sounding board principle², was quite revolutionary; more than 100,000 Rexionolas now in use in Australia testify to its success.

For a time the machines were manufactured under contract, but it was not long before the extent of the new business justified the establishment of a small factory at Anandale. Before long progress had outgrown the capacity of this factory, and new premises were secured at Lilyfield on a portion of the site on which the enormous Rexionola factory now occupies.

In the past five years progress has been even more marked; from an average of 500 machines per month in 1921 it has grown to a present production of approximately 30,000 Rexionolas per annum.

Even with the present enormous output Messrs. Jackson & Macdonald believe that the talking machine industry in Australia is only comparatively in its infancy; each year far more new homes come into existence than the total number of all makes of machines sold; 'saturation point' is still in the dim and distant future.



MR. D. S. MACDONALD.

THE FACTORY

The visitor to the Rexionola factory as it stands today will see on all sides evidences of the use of the most modern equipment and methods for high-class production in large quantities

It is interesting to note the means by which a high degree of efficiency in production has been reached. In the first place, this factory is almost independent of outside sources, except for the supply of raw timber. Everything is done on the premises, every part designed and constructed under the one roof. Even the knives used in the various machines are ground here, the bar steel being

¹ In 1926 the term 'Commonwealth' referred to the Australian mainland only

² Known as the 'Rexionola Reflector Sound Chamber', patented March 29, 1912

bought, and new knives ground as required. From the time the timber enters the building, parts and processes are routed to secure a minimum of waste of time and energy in transportation from one machine to another.

Another interesting point is the method that has been adopted to keep the factory clear of shavings and sawdust. It is a suction blower, pipes from which connect with every machine where sawdust or shavings are thrown off. The suction power generated by this machine is equal to 6½ ounces to the square inch. By this method working conditions are naturally rendered healthier, and risk of 'bruising' timber with loose rubbish is eliminated.

But most important, from the standpoint of modern industry, is the fact that the human side of the question has been most carefully considered. There is, practically speaking, no labour problem. Every man of almost 200 employees in factory and warehouse is a highly trained specialist, has a constant job, and is well paid for it. The result is that he takes a keen interest in his work and, as a practical result, a large proportion of the improvements, mechanical and otherwise, are the outcome of suggestions from the employees.

There is a technical library in the factory, which is freely used, and the Reference Branch of the Sydney Municipal Library frequently conducts researches in the technical aspects of the various processes.

PROCESS OF MANUFACTURE

The timber, mostly oak and Queensland maple, as it comes into the factory, is graded according to size, shape, grain and texture, so as to keep uniform the wood used in each machine and class of machine. It is, of course, already seasoned, but is kept for another year for further seasoning, bringing the total time to four or five years. It is then resawn, stacked and catalogued according to size, are, and grade, and left to season naturally for about another six months. Approximately a six months supply of partly manufactured timber is carried in stock.

After the resawn timber is thoroughly seasoned it is dressed and cut to correct size, and seasoned for another two or three months while waiting to be assembled. These three seasonings allow for three chances of shrinkage before the timber is actually put into the machine. A dimensional planer dresses and trims to exact size on its four sides, and after sanding the timber is crosscut, bevelled and mitred, where necessary. The timber is then again thoroughly examined, and all faulty timber rejected, whether for deficiency in quality or texture, or for having natural faults. For the mitreing of mouldings there is a special saw which cuts absolutely smooth, rendering planing and fitting unnecessary.

As material is cut up it is placed in portable trays, and these are carried forward from machine to machine, from operation to operation, till the final assembling of the cabinet.

There are a number of interesting machines used for special processes, such as cutting the legs, making the grilles, and so forth. One of the most interesting machines in the factory is that used for making all moulded parts. It will mould on four sides, to any shape, timber from ¾ inch by 3-16 inch to 9 inches wide by 4 inches thick. Technically speaking, it has four heads, each revolving at the rate of 4,000 revolutions per minute, and can be used with as many as 24 cutters working at the one time. Two men, with this machine, can handle from 25 to 50 feet of timber a minute. There are three of these machines of different sizes.

THE ASSEMBLING

When all separate pieces of timber are machined and finished, they are ready for assembling without further fitting, boring or chiselling. Each tray has been numbered, and each job numbered for identification. In the case of the better class machines, timber which has been selected for figure is paired, matched and numbered, and assembled in this order. These separate parts are taken by assemblers, clamped together, and then passed on to more skilled workmen for the final fittings of integral parts.

The sound chamber is in many ways the most important part of the machine, for it is on this that the Rexionola largely depends for its tone³. Just as the acoustic properties of buildings vary with the size and

³ Rexionola advertisements used the slogan: 'Rexionolas for tone'

shape of walls and ceilings, size and shape, it is claimed, have the same effect on the sound chamber of a talking machine. After long and patient experiment Messrs. Jackson & Macdonald have arrived at what they consider to be a sound chamber as nearly perfect as is humanly possible.⁴

The motors used for all machines are of best Swiss manufacture. These require as great exactitude in construction as a high-grade clock.

'Rexonolas' are at present widely distributed throughout Australia and New Zealand, and some will probably, in the near future, go to supply the export market.

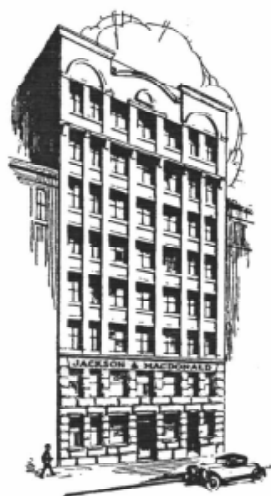
The industry is a thoroughly Australian one. Wherever possible, all parts, materials and machinery used in the construction of 'Rexonolas' are made in Australia, and last, but not least, almost every employee is Australian-born, and many of them returned soldiers.

A NEW WAREHOUSE

The extent of the business had long outgrown the capacity of the Drutt Street warehouse and offices, and a little less than twelve months ago an up-to-date eight-story building in Kent Street was purchased. For many months work was in progress in fitting out this building to house the growing organisation. Two months ago the move was made,

and now assembling, warehousing, packing and delivery departments, office and showrooms are to be found there.

Factory and warehouse together cover more than 75,000 square feet of floor space—eloquent testimony to the growth of the Rexonola business.



The new Rexonola Warehouse and Offices, 360-362 Kent Street, Sydney.

The ground floor of the new building is occupied by the offices and show rooms. The first floor is devoted to records and deliveries; on the second floor is found stocks of all models, ready wrapped for immediate delivery in the city and suburbs. The third floor is the main assembling floor, where the cabinets are fitted with motors, tone arms and other fittings. The fourth floor is used both as an auxiliary assembling department and store room for cabinets awaiting fitting of motors, etc. The fifth floor is the main store room for cabinets awaiting assembling. Some idea of the immense turnover may be gained

from the fact that this floor usually contains about 6,000 cabinets.

The sixth floor presents a busy scene of packing for interstate and country delivery; special types of packing case and methods of packing which combine economy with absolute safety, and considerable saving of time. The seventh floor is the bulk store.

As at the factory the welfare of the employees has been considered, and a flat roof has been set aside for the use of employees as a lunch room and miniature sports ground. That this is appreciated may be seen any day at mid-day from the scene of animation with games in progress over 100 feet above the city street.



⁴ The 1912 'Rexonola Reflector Sound Chamber' was superseded by the second generation 'Prismatic' or 'Prismaphonic' horn, patented April 22, 1926.

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