engaged on it) together with his individual rate of pay is automatically and accurately kept and gives a labour cost which, when taken in conjunction with the material and other charges, enables the Firm to calculate the total cost of any article produced to the fraction of a penny.

A word must here be said as to the excellent relations existing between the Company and its employees, everything being done that is possible to further the interests and enhance the comfort and general well-being of all concerned. For this purpose, first-rate canteens and other arrangements exist, while surrounding the works and the property of one of the Directors, and the town, there are row houses and terraced dwellings, each with its plot of garden, let on very reasonable terms, in which many of the employees live.

In conclusion we would mention that the high-class character of the work produced by Messrs. Newman, Hender and Co., Ltd., is attested by the very extensive nature of their business, for besides being constantly employed in executing important Government contracts, their manufactures find a ready market in nearly all parts of the world.

The London office of the Company is situated at 91. Whitehall Place, while they are represented in Glasgow by Messrs. Forbes and McBurnet, 39, Waterloo Street.

W. S. BARRON & SON, GLOUCESTER.

A well-known Firm of Milling Engineers.

GLOUCESTER has long been known not only as a chief manufacturing centre, but also as the locale of engineering firms that make a speciality of flour-milling machinery and appliances. There are in the city several concerns that have achieved a national reputation in this respect, particularly the well-known firm of Messrs. W. S. Barron and Son, Sweet-briar Road, Rislingtont.

Messrs. Barron and Son occupy commodious premises, favourably situated near the Great Western and Midland Railways. Adjoining the buildings ample ground is reserved per- mitting an extension of the plant should it be required, an event which the steady growth of the business will render more and more certain. Mr. W. S. Barron, the founder of the business and the present senior member of the Firm, has had a particularly extensive acquaint- ance with milling engineering, to which he has devoted over 30 years of his life. After having served a thorough apprenticeship in Yorks, he spent some years in travel, erecting and selling milling machinery in various places in England and abroad. During his travels he not only gained a wide and accurate knowledge of milling, both theoretically and practically, but he became personally known in milling circles throughout the entire country. When, in 1865, he decided to engage in business for himself, establishing his works in Gloucester, this wide acquaintance formed the basis of his present very gratifying connection.

The range of Messrs. W. S. Barron and Son's operations would be best described by saying that they are engaged not only upon the designing and manufacture of all kinds of mill machinery, but directly or indirectly connected with milling. They are equally competent to make or repair a machine or mill, to make alterations, to design, manufacture and install a complete system for mills of any character or capacity. It would probably be accurate to say that they devote particular attention to the designing and installation of complete plants, and the Firm can refer inquirers to scores of both steam and water mills, and to many other large undertakings, erected by Mr. W. S. Barron. It should be stated in this connection that Mr. W. S. Barron has long been a keen student of the mechanical sciences, and he has been familiar with the complete revolution effected in milling processes in the past three decades, and that he has himself done not a little to aid the transition from the old-fashioned stone or "bars" to the present steel rollers. In addition to equipping new mills, the Firm also give a great deal of attention to the modernizing old mills, up-to-date by gradually, or at once, removing old machinery and installing new. Readers of the manufacturers' journals will find two of the leading technical journals devoted to the trade, frequently see the firm mentioned in connection with the erection, enlargement, or remodelling of plants.

Messrs. W. S. Barron and Son excel in the manufacture as well as in the installation of special machinery. A recent example of their special skills is shown in the manufacture of the grain - cleaning and elevator apparatus, millstones and rolls, boilers, separators designed for elevators, separators, rice, and water wheels, gearing, shafting, etc. They also make a great deal of special machinery for the manufacture of cacao, spices, drugs, pepper, ginger, powder sifting and blending, color grading, sugar grinding and dressing, etc. Repairs are promptly executed under personal supervision, and only experienced men are sent out to do erecting.

The Firm also act as valuers and arbitrators, the long experience and familiarity with this class of work having given them a peculiar qualification for this work. Their technical knowledge is enhanced by an integrity which has never been questioned.

The present members of the Firm are Mr. W. S. Barron, the founder and present head, and Mr. S. Barron, the latter who was but recently admitted to the Firm, was for some years in the works of his uncle, Mr. J. Barron, of Leeds, where he acquired the experience which has been put to good account by the Firm. The firm have gained the confidence of trade circles generally and are deservedly well-scored for their personal, as well as business, traits.

W. SISSON & COMPANY.

GLOUCESTER.

Manufacturers of Patent High Speed Engines for Pumps, Dyms, and High Class Marine Machinery.

This Firm has been in existence since 1889, when the business formerly carried on by the late Mr. J. J. Seckings, was taken over by Messrs. W. Sisson and Son, who have ever since employed, while to day the number has been increased to about 70, being as many as the premises can well accommodate, and the8umption in connection with the works has been considerably improved.

While Messrs. W. Sisson and Company are marine and general engineers, they have for some years devoted special attention to the manufacture of their own patent high-speed marine engines, which are of all types, are working in all parts of the world. They have constructed the engines and boilers for all the fast liners on the Wintervorke Line. In one of these launches, for which they supplied both the hull and the machinery, is 65 feet long, and attained a trial speed of 341 miles an hour; another, 45 feet long, attained a trial speed of 184 miles an hour. They have also supplied a great many engines for Thames steamers, various ships and the well-known Salter Line of passenger boats.

They have recently developed the Sisson Patent High Speed Engine for dynamos driving. It is particularly designed for electrical power and traction plants, and protracted and thorough experiments, carried on under the personal supervision of the designers, have shown it to produce excellent results. For steam and oil economy, large overload capacity, prompt and close governing, and favourable steam consumption, it is seen to be one of the best, and largely varying loads, the Sisson Patent High Speed Engines has proved its superior to the best throttle governed high speed engines.

The largest Sisson engine yet made is one of 900 h.p., destined for Johannesburg; another 275 h.p. of the same type, is fitted in a large yacht; and two others of 600 h.p. each, were made for Cape Town, the former being the largest marine diesel engines ever constructed in Gloucester. Three of 400 h.p. have been at work for some years in the Danzide station of the City of London Electric Lighting Company (the largest in the country).

Reference has already been made to the high quality of the works. It can be said with perfect accuracy that their aim and constant effort is to embody in their publications, whether important or comparatively unimportant, the most conscientious work as well as good practical and theoretical knowledge.

Messrs. Sisson and Company intend shortly to erect new works in a more favourable situation, where they can economically produce their manufactures under the best conditions.

LEONARD THOMAS & CO.

COALEY MILLS, Nr. DURSLEY.

Manufacturers of Spades, Shovels, Draining and Drainage Tools.

Neither an excellent and well-known name: in Gloucestershire industry, where firm is the oldest existing ironworks in the County, and the only one devoted exclusively to these operations, spades, shovels, and similar implements and tools.

The business was established in 1744, since when it has never been changed. For nearly 80 years ago Mr. Leonard Thomas, the head of the present Company, first became identified with the business. Under his direction the industry has fully maintained the prestige which it has enjoyed for a century and a half.

The freestoll premises owned and occupied by Messrs. Leonard Thomas and Company comprises 7 acres of ground, with valuable water power and ample reserve ground for further extensions. Among the buildings in use are the original large stone structures, a separate building of compara- tively recent erection, and various additions the latest of which comprises 150 yards. The motive power is furnished by a water-wheel, two turbines, and an oil engine. Each department, including the foundries for grinding and wood-working stores, stores, and the warehouse, occupies a separate portion of the buildings. The mechanical equipment is thoroughly complete, including a number of furnaces, heavy power hammers, stamping, pressing, and punching machines, wood-work- ing machinery, etc., and every tool and appliance necessary for economical production.

As has been stated, Messrs. Leonard Thomas and Company manufacture a wide variety of goods, ranging from general gardening and draining tools, road scrapers, lades, axes, etc. They publish an attractive illustrated catalogue, and have on hand a vast variety of implements of their own manufacture. They are contractors to His Majesty's Government, and have executed several important contracts for the Government for its service in India, and the Indian railways and contractors. Considerable quantities of their special implements are also exported, principally through the London and other woolen markets.

Of the high character of the Firm's manu- factures it is unnecessary to speak, as their reputation has passed beyond all possible praise, and in the exhibition of tools which are capable of sustaining a sufficient strain, the materials and materials are represented in every article that leaves the premises.