of tensile and bend tests required for wagon wheel centres has been reduced, as it was considered that the quantity asked for under the existing specification was somewhat in excess of that usually obtaining in general practice. For locomotive wheel centres cast with heavy balance weights it has been made permissible to reduce the height of the fall in the drop test. An alteration has been made in the specification for copper and brass tubes for locomotive boders, a drifting test having been added to the clause dealing with the bulging test. The principal alterations in connection with steel plates are in connection with the new standard 4 diameter test piece for bars of over one inch diameter This shorter test piece has been introduced to reduce the



Seed Dresser.

amount of material required for testing, and the amount of turning down when such is necessary. A temper bend test of the rivet steel has been added in the case of rivets.

Royal Agricultural Society's Show, Lincoln.

Having tried the experiment for three years of making London its permanent home, with disastrous financial results, viz., in 1903, 1904, and 1905, a reversion of the original policy of visiting a different town each year was made in 1906. This year Lincoln was selected, a town previously visited fifty-three years ago. As usual the main interest lay in the agricultural implements, of which there were many exhibits. The show ground covered 125 acres. There were also the competitions, which this year were confined to swathturners and side delivery hay rakes. In the former class both prizes went to Messrs. Blackstone & Co., of Stanford. An interesting exhibit was a log band saw, electrically driven, on the stand of Messrs. Ransome & Co., of Newark. The motor armature is built on the axle of one of the saw pulley shafts, thus giving a direct drive which is becoming common with machine tools. It is stated that the energy necessary for dealing with 100 superficial feet is one kilowatt hour. The machine is capable of handling logs three feet in diameter. The machine which secured the society's medal under the "new implement" section was a seed dresser by Mr. F. M. Dossor, of Doncaster, which has been designed law will shortly be submitted in this connection.

for the purpose of cleaning small seed, such as clover, and extracting all foreign matter. The machine can be hand or power driven. The seeds pass through a number of overlapping velvet belts driven by chains and chain wheels. The machine shown at Lincoln was capable of dealing with fror 15 cwt. to 20 cwt. per day of nine hours. The machine is 7 feet 9 inches high and occupies a floor space of four feet. There were the usual large number of traction engines and windmills on view, and a number of steam wagons. The exhibits also pointed to the suppression of hand milking by mechanical means, several pieces of apparatus of this class being exhibited.

The Engineering Conference.

The biennial engineering conference held in London under the auspices of the Institution of Civil Engineers took place towards the end of June, and although it is obviously impossible to give anything like an account of the proceedings in a short note, a few particulars may be interesting. The president was Sir Alex. B. W. Kennedy, F.R.S., and among the various matters discussed in the seven sections into which the conference was divided were the following: Light Railway Policy; relative advantages of Electric and Hydraulic Appliances for dock equipments; audible signalling on railways; dredging rock in the Suez Canal; machine tool design as affected by high speed cutting tools; arrangement and design of colliery surface works; electrical transmission gears on motor vehicles; upkeep charges on large electric generating sets. Altogether the conference was a pronounced success, although, of course, certain papers did not attract exceptional notice, but from the general point of view, the method adopted of reading only short notes with a view to encouraging long discussions (instead of reading long papers) is one which can be recommended to most engineering debating societies.

A Shipbuilding " Entente Cordiale."

The working arrangement between the two leading firms of shipbuilders, viz., Messrs. J. Brown & Co. (Glasgow) and Messrs. Harland & Wolff (Belfast) has provided a mild sensation, despite the fact that rumours were naturally flying about before official confirmation was forthcoming. It would appear that there has been an exchange of shares with the object of, in future, distributing the work of the two firms in a more economical manner between the various workshops at Belfast, Glasgow, and Southampton.

British Engineer for Victorian Railways.

Mr. C. H. Merz, the well-known Tyneside electrical engineer, who was responsible for the first steam railway in Great Britain, converted to electric traction, has been selected by the Premier of Victoria (Australia) to visit that colony and advise in connection with the conversion to electric traction of the steam railways there. Mr. Merz, it will be remembered, was the engineer who in 1905 gave such prominence to the electric power problem in London, and who, though himself unsuccessful through political obstruction, has had the doubtful satisfaction of seeing subsequent schemes based upon his own.

Imperial College of Science.

The Board of Governors of the new Imperial College of Science and Technology at South Kensington, London, is now complete, and the draft charter for the establishment of the college has been submitted to His Majesty the King for his approval.

Telephone surveys of the city of Winnipeg have been made by the Government telephone officials, and subways have been laid out. It is expected that the actual work will begin before the end of the month. The contracts for subways include from 70,000 to 80,000 trench feet comprising 500,000 duct feet. This work is all being laid out similarly to Winnipeg.

The town of Hebertville, is considering the installation of a system of waterworks, in the immediate future, and Mr. V. H. Dupont, C.E., of Montreal, has submitted, by request, a plan for a system to cost in the vicinity of \$36,000. A by-

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