

ELECTRICAL COAL CUTTERS IN SCOTLAND.

of the fund. Appended will be found a statement of disbursements &c. The item special grants covers a good deal of ground. Some participated for a long time. Take an instance:—One of those who came under this item was permanently injured in the back. Being young he was sent to learn the tailoring, and the committee paid his board for two or three years. There was a committee of five to specially look after this class of beneficiaries. In the item "Special grants to widows" is included charges for nursing &c. as a dozen children were born after the fathers had been killed in the accident. A word as to the item "Coal to widows." There was an old custom in vogue at the time of the explosion, brought probably to Springhill from Pictou by Manager Hall by which widows obtained coal free. At the time of the accident a score or more of widows were receiving free coal, and of course the 57 widows of the explosion would be entitled to the same privilege. The system was open to objection as in some cases the privilege was being abused. The Gen'l Manager doubled his subscription to the Relief Fund paying three-fifths instead of three-tenths as the law directs; and asked that the difference—three-tenths be placed to the credit of the Relief Fund for coal. After that each widow received \$1.50 per month, for which the company sold them one ton of coal delivered at the houses. The cost of management amounts to only \$1500 odd dollars, from which it may be gathered that some ones performed many and big "labors of love."

Public Contributions,	\$106,462 75	
Int. on Dep. Bk. of Montreal	16,128 96	
Int. on Dep. Hx. Banking Co.	2,581 82	
Contributed by Cumb. Ry. & Coal Co. in lieu of free coal to Widows.	13,737 70	\$138,911.23
Payments to Widows and Orphans.	99,004 13	
Payments to Parents deprived of support.	19,521 31	
Special grants to disabled paid on recommendation of sick Committee.	2,619 70	
Medical attendance and nursing injured.	413 07	
Special grants to Widows including nursing in case of illness etc.	384 05	
Incidental expenses principally at time of disaster/ Medical attendance to families of deceased by Colliery Doctors at 50 cts. per families monthly	773 42	
Funeral benefits to survivors of deceased, beneficiaries 1 adults, 9 children.	1,575 00	
Cost of management Coal supplied to Widows all classes, contributed as above	12,690 26	\$138,911.23

A scarcity of cars, owing to storms etc., accounts for the decreased output at the Marsh as compared with January of 1904.

Few of the individual Scottish collieries are comparable in size with the larger collieries in England and Wales, and the proper equipments required are therefore on a relatively smaller scale; but there has been steady progress in the application of electrical methods to mechanical operations in coal mining. During 1904 many entirely new equipments have been erected, and substantial additions made to existing ones.

The field of application of electricity in collieries is also broadening. The modern screening apparatus, washeries, coking, and by-product-recovery plants now being so generally installed call for a considerable amount of power for various auxiliary purposes, and in separate units on the surface. In convenience and economy electric driving under these conditions has no rival. But it is underground that the advantages of electricity are chiefly realised owing to the ease with which power may be transmitted to the point of its application. For hauling, dip pumping, and for coal cutting especially electricity is rapidly supplanting earlier methods.

The greatest relative progress has undoubtedly been in the department of coal-cutting. The thicker and more easily worked coal seams in Lanarkshire, as elsewhere in this country, are becoming exhausted, and recourse is being had to the thinner seams, which are more expensive to work. An "undercut" is made which allows the coal to fall, and when this undercut is made by hand in thin seams a large proportion of the coal is broken up into "small," and the selling price of the output is reduced. A coal cutter, when undercutting in the coal, effects a large saving in this respect. But underlying a coal seam there is generally a band of "fire clay," and this, while often too hard to be cut by hand, can be freely cut by machine, and the proportion of "small" is still further reduced. The tendency of the coal cutter is not to reduce the number of men employed, but to relieve the men of the most arduous and dangerous part of their work, and by increasing the output to add to the number employed at the various stages until the coal is loaded in railway trucks for delivery. The number of coal-cutters in this district, as all over the country, is largely and rapidly on the increase, and it is satisfactory to know that there are at least two local manufacturers who have energetically and successfully taken up this branch of work, and are not only holding their own in Scotland but placing many machines in England and Wales, and exporting to the Continent, South Africa, and Australia.

A very interesting development in the working of thin seams is being brought in the wake of the coal-cutter. This is an electrically driven hand conveyor, on to which the coal is placed after being undercut. The conveyor carries the coal from the "face" and automatically fills the small trucks in which it is taken to the surface. One such conveyor is now at work in Wales in connection with a Glasgow-made coal cutter; at least one other conveyor is in use in the North of England, and one of our local coal masters who has been a leader in the matter of coal cutting will have a similar arrangement at work early in 1905.—Glasgow Herald.