

is placed the other case. This rubber band should always be used, as it makes the meter perfectly dust and bug proof. It has been found that meters with cases of ordinary fitting are hampered with dust and dirt; and with such cases it is impossible to keep meters correct, necessitating frequent overhauling and cleaning. The Scheefer meter, if the case is properly put on with the rubber band, is perfectly air-tight and gives an assurance of its permanency. The binding posts will be seen to be insulated in a thorough manner, ordinary holes not being depended upon. The holes in the binding part are closed on end and insulated by hard rubber, making it impossible that anything can get through the post; and also making it unnecessary to tape or plug any holes. The moving parts are extremely light—at the same time not too delicate.

The iron circuit in the magnetic system is practically a closed one, preventing stray lines of force from acting on other parts of the meter, and is therefore, unaffected by outside influences. This closed circuit gives the maximum effect with the minimum energy possible in construction, the shunt winding taking about $\frac{1}{2}$ to $\frac{1}{4}$ Watt, on 15,000 alternations, and not exceeding $\frac{1}{2}$ to $\frac{3}{4}$ Watt on 7,200 alternations.

This meter is correct on inductive loads, and therefore can be used on fan motors, or induction motors, arc lamps, etc.

Stations adopting the meter system in all

or part, must take the proper care and precaution in their use. This requires some familiarity with meters, which is generally obtained by experience and care in following the instructions. That some people get better results with meters than others is due to the more intelligent care taken. A meter by nature is of a delicate construction. They are carefully calibrated by standard instruments and packed with considerable care. In order that they should remain correct it is necessary that they be handled so that nothing changes. The friction is reduced to the lowest point, and any rough handling will strain or change some part, which will immediately add friction, and then the meter ceases to be reliable.

Every station which uses meters should fit up a place to overhaul and keep meters; a place that can be locked up or kept so that the meters may remain untampered. A wood rack or base on which meters can be conveniently placed and leveled for testing, inspected and calibrated, should be secured—one with brass levelling screws would be preferred; also a board with key wall sockets, having lamps for testing, and all connections made in workmanlike manner, so that meters can be tested in a convenient and rapid manner.

The first and greatest trouble with meters having ordinary cases, is that of dirt getting into them, as it is impossible with ordinary joints to prevent this. Bugs seeking warmth

and darkness always enter meters. Meters of this class should be taken down at least once a year, tested and thoroughly cleaned. A bellows and brush may in some cases suffice. In other cases it will be necessary to take the meter apart and thoroughly clean.

The jewels should be inspected, as they wear rough or may be cracked. By screwing out the jewel screw from the bottom, and taking a pin or needle and running it over the surface of the jewel, any imperfection or roughness can be detected. If the least roughness is detected a new jewel screw should be used. Also the pivot on end of shaft should be inspected. As a rule, a rough jewel will make a rough pivot. If the pivot is replaceable, as in the new Scheefer Meter, a new pivot can be placed in. If the pivot is not replaceable, a new shaft should be used.

The top guiding pin on the shaft should be inspected to see that it is not bent, as it is quite thin and may be bent in taking the armature in or out of the meter, or in packing. In the new Scheefer Meter, this can be replaced by a new pin. If the pin is bent it will be quite likely that the meter will not run properly.

See that no dirt is between the magnets. Carefully pass clean paper between them to dislodge any particles. See that all the screws are tight about the meter.

THE WM. HAMILTON MFG. CO., LIMITED,

Engineers and Builders

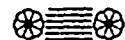
MODERN MINING and MILLING MACHINERY

"Gyrating Vanner"

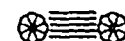
SHAKES LIKE A PAN—SEND FOR SPECIAL CIRCULAR



Department "E"



Contractors for the Design and Construction of Complete Stamp Mills, Concentration, Chlorination, Cyanide, and Smelter Equipments....



PETERBOROUGH, ONT., or VANCOUVER, B.C.