installations of bacterial sewage filters, using their equipment. The pamphlet is divided into sections, part one covering domestic installations; part two, Intermittent Sand Filters; part three, Comtact Beds; part four, Percolating Filters. Those interested in sewage design or construction may obtain copies by writing the Pacific Flush Tank Company, The Temple, 184 La Salle Street, Chicago.

Olympia Electrical Exhibition. Bruce Peebles & Company, engineers, Edinburgh, have just gotten out a booklet, No. 708, describing their exhibit at the Olympia Electrical Exhibition, London, 1911. The booklet is profusely illustrated, and shows a large number of performance curves. The publication deals entirely with types of machines which were shown there.

Graphic Meters.—The Westinghouse Electrical and Manufacturing Company has issued Circular 1131 describing graphic meters for switchboard service. The publication shows illustrations of the meters together with typical charts taken from same, indicating the various uses to which graphic meters may be put with advantage to the user.

Small Motors.—The Westinghouse Electric and Manufacturing Company has just issued the first edition of a small monthly publication entitled "Small Motors," which is devoted to forming a co-operative bond between the manufacturer and the dealer in small electric motors for general household, store, and office work.

The publication is devoted to practical applications of small motors, showing views of motors in actual service, such as operating ice cream freezers, small lathes, washing machines, grinding wheels, and numerous other household devices.

An interesting application of the small motor for the household is its use as an auxiliary to the furnace, assisting in the heating and ventilating of same. By means of a blower attachment the motor may be used:

To increase the draft; to increase the distribution of heated air by drawing it from the pipes and forcing it into the room; ventilating a steam-heated room; and in numerous other ways assist in the heating and ventilation of the home

Advice as to installation, operation, and care of the motors is given in short practical talks.

"Small Motors" is distributed to central stations and dealers, the first of every month.

Rotary Converters for Railway Service.—Descriptive leaflet 2378 has just been issued by the Westinghouse Electric and Manufacturing Company. This is a four-page leaflet, nine and a half by eleven inches, and contains quite a number of illustrations describing the various parts of rotary converters, such as armature coils, spider, equalizer connections, collector rings, commutator brush riggings, etc.

Under each picture is given a short description of the method of construction of the part illustrated. One page is devoted to pictures of the rotary converters completely assembled.

Flumes.—A unique idea comes in the form of an original catalogue, gotten out by the Hess Flume Company, of 635-636 First National Bank Building, Denver, Colorado, showing their metal flumes as used for irrigation, power, mining and substructures for various purposes.

This interesting booklet is printed in what our printer friends call "reverse," that is the type and the pen drawing illustrations are in white and the paper a dark blue in imitation of blue-prints. It contains much information on the subject of flumes in general that is of value. Two pages are devoted entirely to tables of the carrying capacity of different sized flumes and various specifications. These will be of help to the engineer, or, in fact, to anyone figuring on flumes.

The Hess Company claim certain advantages for their improved galvanized Toncan Metal flumes. First, the fact that they are made of Toncan Metal sheets, supplied by the Stark Rolling Mill Co., Canton, O., which are claimed to be particularly adaptable to meet the severe conditions and exposure to which all flumes are certain to be subjected. Second, they claim that the Hess is the only flume with a perfectly smooth interior. The inter-locking sections are easily assembled, and a water-tight joint is secured without the use of either solder or rivets.

Their unique catalogue illustrates this joint, and the pen pictures show in detail the construction of the Hess flume. The other lines, metal lumber substructures, metallic intakes and outlets, headgates, pressure pipe, are each briefly mentioned and described. Judged from both the standpoint of originality and from that of practical utility the Hess flume catalogue is certainly a most unique and interesting book, well worth the perusal of every one interested in flumes in any way.

Westinghouse Railway Equipment is the title given by the Westinghouse Electric & Manufacturing Company to its Folder No. 4184, dated September, 1911. This is an art folder, time-table size, and it has a very attractive cover. In the folder are described the spider armature construction used by the Westinghouse Company, its railway motor brush holders, its armature and axle bearings, and its unit switch control systems, both for 600 and 1,200 volts. Discussions are also given of the comparative advantages of interpole and non-interpole railway motors, and of box frame vs. split frame motors. Many photographic reproductions are given of modern interurban and street railway cars, and beside each is tabulated an outline specification for each car, indicating what electrical and mechanical equipment is used on it and its dimensions.

Westinghouse Auxiliary Contactor Equipments.—In its folder No. 4186, dated September, 1911, the Westinghouse Electric & Manufacturing Company, East Pittsburg, Penna., describes an auxiliary line switch for use on trolley cars equipped with ordinary drum type controllers. The auxiliary line switch is electro-pneumatically operated and is mounted underneath the car. The line current is broken by this switch, which is in effect a very rugged circuit breaker. The folder contains a complete description and photographic illustrations of the line switch and wiring diagram showing how it should be installed.

Turbine Blower Sets.—The Terry Steam Turbine Company has issued "Bulletin No. 12," dated September, 1911, which is a report on 50 installations. Rather complete data is given concerning the sizes, types and methods of operating. A description of the new type, delivering at 40 inches pressure, is included. Copies can be obtained upon request.

Stokers.—A new catalogue of the Taylor Stoker has just been issued by the manufacturers, the American Ship Windlass Co., Providence, R.I. The stoker is well illustrated with the parts named in several views. Other illustrations show well-known power plants such as the New York Edison Waterside Station, the Christian Street Station of the Philadelphia Electric Light Co., the Detroit Edison Co., the Everett Mills of Lawrence, and the Oxford Paper Co., of Rumford Falls, Maine. An interesting cut is shown of the largest stokers ever built, these being the two 14-retort stokers for the Hartford Electric Light Co. This catalogue is of forty pages, 6 x 9.

Air Pumps.—Bulletin 103 just issued by the Wheeler Condenser & Engineering Company, is a new edition of their bulletin on the Wheeler-Edwards Air Pump for operation in connection with surface condensers, handling both the air and condensed steam.