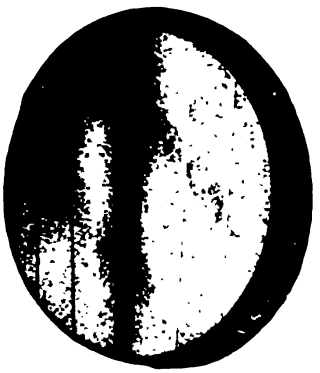
up, with the usual thoroughness characteristic of this company in its published matter, the details of construction, together with a set of capacity tables covering the range of each size of fan. Size, 8½x11 in. (Standard). Pp. 16.

AUTOVENT MODERN VENTILATING APPARATUS is the subject of a new catalogue (fifth edition) published by the Batterman Truitt Co., Chicago, Ill. In addition to the company's line of Autovent motor-driven propeller fans, for use with both alternating and direct current, the catalogue describes the Autovent louvre, the construction of which is



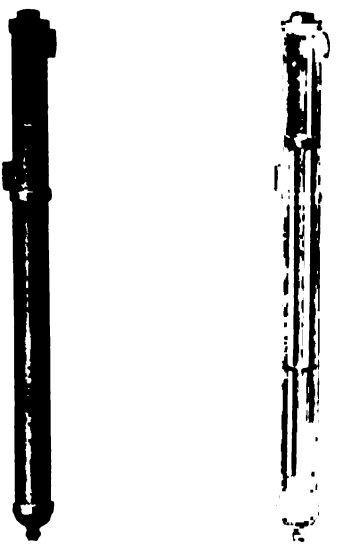
AUTOVENT LOUVRE CLOSED.

shown in the accompanying illustration. These louvres are round in design to correspond with the various sizes of fans. They are especially designed to prevent back draft and to provide weather protection to fan openings when the fan is not running. They consist of a number of semi-circular vanes connected together in series and pivoted slantingly, which drop into a closing position without exerting an excessive resistance against their opening movement caused by air directed against them from the opposite side. When the vanes are open or in a partly-open position, they assume an angle designed to afford a better passage of air from the fan than is obtained by the ordinary louvre. The vanes of the louvre are made of galvanized iron, while all working parts are made of brass. Installation dimensions are included, with the additional note, "all sizes carried in stock for quick shipment." Size of catalogue, 3½x6¼ in. Pp. 22.

"ACCEPTED AND APPROVED" is the title of a circular giving the results of an efficiency test, made at Purdue University, Lafayette, Ind., of Clarage Kalamazoo vertical steam engines. The circular summarizes the test and the conclusion reached and note is made that the complete test is on file and will be shown to those interested. It was found, among other things, that the horsepower developed was large, the mechanical efficiency "very high," and the steam consumption below the average. Illustrated descriptive matter regarding this type of engine is included in the circular, including a cross-section view. The engines are stated to be especially suited for driving stokers or mechanical draft apparatus, small generators or centrifugal pumps, and fans or blowers.

Hoffman Equalizing Loop.

A unique appliance, known as the Hoffman equalizing loop has been brought out by the Hoffman Specialty Co., Chicago, Ill. As will be seen from the accompanying illustration, the Hoffman equalizing loop is made entirely of metal, without moving parts or mechanical device of any kind. The upper part of the loop, shown in the accompanying sectional view, is made of special casting, having a diaphragm just above the lower side inlet



Exterior View. Phantom View.

HOFFMAN EQUALIZING LOOP.

which divides the loop into upper and lower chambers. The upper and lower openings of the loop are tapped for 1¼-in. pipe. The upper and lower chambers are connected by means of two brass pipes screwed into the diaphragm. One of these pipes extends above the diaphragm, the other being flush with the diaphragm. The lower end of one of the pipes is slotted vertically, as shown in the illustration.

The steam supply connection from the

top of the boiler or from the supply main is connected into the lower opening of the casting and the operation of the loop is peculiar, in that it is entirely neutral, performing no function except that of freely passing such condensation as may come to it, so long as the boiler pressure is 10 oz. or less. Should, however, the boiler pressure exceed 10 oz. the water is pushed down in the loop until the slotted pipe is uncovered, when steam immediately passes through the slot into the return line, thus tending to balance the pressure between the two lines.

The function of the slotted pipe is to pass just sufficient steam into the return line to maintain the pressure in the supply line 10 oz. greater than in the return line, when the pressure on the boiler is over 10 oz.

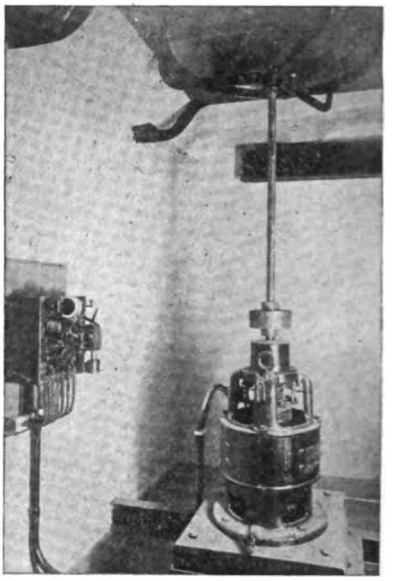
So long as the boiler pressure is above 10 oz. the differential between the supply and return line is exactly 10 oz., no matter whether the pressure is 10 oz. or 5 lbs., and this 10 oz. differential causes the water to stand in the vertical return pipe just 17 in. higher than the water line in the boiler, and the water loss from the boiler is measured by the quantity contained in the vertical pipe to a height of 17 in.

Therefore this device, it is stated, will maintain an unvarying water line in the boiler, independent of boiler pressure, and hence the water line in the boiler is never lowered to a point where the heat from the fire can exert an influence that is destructive to the castings which compose it.

Ventilating Equipment of a Fifth Avenue Residence, New York.

One of the well-known landmarks of New York is a large brown-stone residence on the corner of Fifth Avenue and 51st Street. This dwelling was built many years ago before modern conveniences were known and though from time to time improvements have been added, it has heretofore lacked a system of mechanical ventilation. This defect has now been remedied, however, and a complete system has been put in.

In all, three motor-driven ventilating fans have been installed, for the kitchen, ball room and picture gallery, and the toilets, respectively. These sets are installed in the upper floors in small rooms where they are out of sight but readily inspected when necessary. Quiet operation is essential for installation of this kind and the equipment was selected with this feature in mind. All three fans are started and stopped by push buttons placed in or near the rooms served so that the ventilation can be readily controlled at the point where the air is needed. The speed of the motors is regulated by means of manually-operated field-and-armature control rheostats.



ARRANGEMENT OF TOILET EXHAUST OUTFIT IN FIFTH AVENUE RESIDENCE.

The toilet exhaust outfit is somewhat unusual. It consists of a vertical 2 H. P. Westinghouse direct-current motor, 333/500 R.P.M. coupled to a 36-inch Blackman fan. The motor rests on a cast-iron base which is carried by I-beams set in the wall. The air is carried by ducts which terminate in the closet containing the motor and is then exhausted into the open air.

The ball room and picture gallery set consists of the same type and size of motor and fan, but the fan is mounted horizontally and carries the motor directly on its shaft.

The kitchen exhaust set consists of a 2 H.P. Westinghouse direct-current motor, 266/400 R.P.M.; and a No. 4 Sirocco blower.

Baker Smith & Co., New York, were the ventilating engineers.

John A. Stevens Trust Fund has been established by The American Society of Mechanical Engineers, through the generosity of John A. Stevens, to promote progress in the art of engineering. The fund consists of a $15,000 insurance policy which will eventually be turned over to the society. The net annual income accruing from this fund will then be allotted annually in equal shares to the person or persons who have that year invented or been responsible for an invention having to do with the conservation of light, heat and power.