E. B. Badger & Sons Co.

63-75 Pitts Street, **Boston, Mass.**

Engineers and Manufacturers

NEW YORK OFFICE, 271 Madison Avenue — OFFICES IN PRINCIPAL CITIES

PRODUCTS: Corrugated Expansion Joints, Pipe Bends, Chemical Apparatus, Copper and Sheet Metal Work, Copper Boilers and Hot Water Tanks.

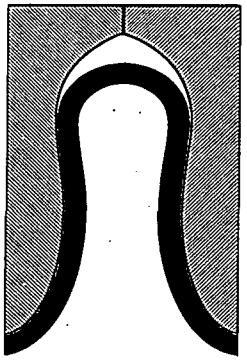
BADGER SELF-EQUALIZING EXPANSION JOINTS

These have been on the market for more than forty years and as sold today represent the results of a series of distinct improvements. Badger engineers are responsible for such developments in the corrugated type of joint as special analysis copper of which the seamless tubes have been made, the equalizing rings, the monel metal sleeve to protect against superheated steam, the welding end joint. Now, Badger Joints carry another big improvement in a new design corrugation which functions on the principle of Directed Flexing.

Before passing to this subject, a word about the importance of using the corrugated type of joint. Not only is it compact and easily installed, but it requires no maintenance. It uses no packing.

Directed Flexing

The shape of the new Badger Corrugation is entirely curved. There are no straight sides. In action the corrugation undulates, using the equalizing ring as a guide. This is the so-called "Directed Flexing." Instead of being left to chance, the flexing of the metal is guided so as to undulate along an all-curved surface. This is well brought out in the two sections shown. The shaded portions are two halves of adjacent equalizing rings; the heavy line is the corrugation. Note how it is wrapped around the curve of the ring.



Longer joint life is the direct result of this improvement. A new bulletin, describing this new corrugation, will be sent on request.

Different Types Available

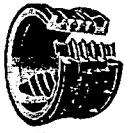
Both flanged end and welding end joints are available from 3 in. (welding) and 4 in. (flanged) up. Single or double joints with or without service outlets. All joints can be equipped with telescoping monel metal sleeves to protect against superheated steam.

Flanged Types



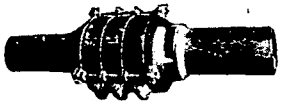
Fitted with alignment bars on the 4 and 5 in. sizes. Choice of standard or extra heavy flanges.



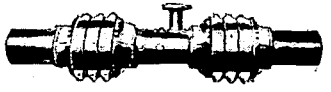


On 6 in. pipe and larger, no alignment bar is used. Standard 125 lb. or extra heavy 250 lb. flanges as required.

Welding Types



For use with both saturated and superheated steam. Single type from 3 in. up, to take care of 1 in. expansion or more. Pipe nipples welded directly into pipe line.



Double units for 2 in. expansion or more. Equipped with service outlets as shown, if desired. Complete units furnished, mounted on base plate, with anchor and guides.

Single and Multiple Corrugated Expansion Joints for Low Pressure

For use between turbine or engine exhausts and condenser or on low pressure lines. Excellent for absorbing shock and vibration. Flanges in round, oval or rectangular shapes. Guaranteed up to 30 lb. pressure.

Bayley Blower Company

1817 S. Sixty-Sixth Street — **Branches in Principal Cities** — **Milwaukee, Wis.**

Builders of Heating, Ventilating, Cooling, Purifying, Humidifying and Air Washing Equipment; Exhaust and Drying Apparatus, Mechanical Draft and Blast, Fans and Blowers of all Types

Bayley Plexiform Fan:



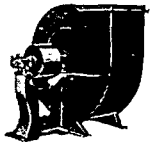
Is a multi-blade fan for supplying air for heating and ventilating systems, manufacturing processes, drying systems, forced and induced draft systems. It is suitable for handling high or low temperature gases at medium or low pressure. Will deliver maximum quantities requiring minimum space with great economy.

This is a distinct Bayley product, high class material and workmanship, properly designed to avoid excessive vibration and overstressing of parts. Inlets and outlets are properly sized for maximum delivery and maximum efficiency. Fans are furnished in single or double width of any required arrangement and with sleeve or anti-friction bearings.

Aeroplex Fan:

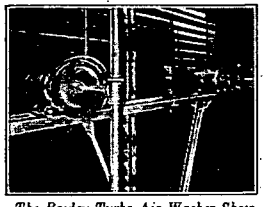
Is of high speed design with self limiting power characteristics. Application parallel to the Plexiform Fan. Highly efficient and quiet in operation.

Bayley Exhausters and Pressure Blowers:



Type "B" exhaust fan is for heavy duty, handling refuse from industrial and textile plants. Type "SE" is used in handling smoke, fumes and dust-laden gases. Type "H" for high-pressure work. These units are highly efficient and of high class design and workmanship.

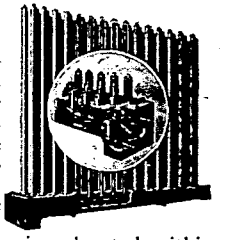
Bayley Turbo Air Washers, Humidifiers and De-Humidifiers:



The Bayley Turbo Air Washer Showing Turbo Atomizer and Eliminator

The Turbo Atomizer used in the Bayley Washer produces a steady, fine spray. Water at low pressure is delivered to the center of a rapidly revolving cone-shaped rotor provided with atomizing pins set in its periphery. This atomizer requires very little attention, and will operate successfully under low water pressure. The orifices are large and this atomizer, unlike high pressure nozzles, cannot clog.

Bayley Chinook Heating Sections:



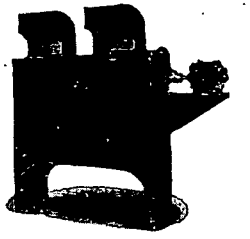
The Chinook section is used with blast heating, ventilating and drying systems, and is suitable for high or low pressure steam circulation. The base is divided into two chambers. Steam enters (see cut) the lower chamber, rising through ⅜-in. pipes located within the 1¼-in. pipes leading from the upper chamber. Condensation takes place in the larger pipes, the water falling into the upper chamber and draining away through the return outlet. The Chinook can be repaired in the middle of the bank without breaking steam connections or taking down a section.

Shipped assembled in smaller sizes, and knocked down in the larger units. May be installed in horizontal or vertical position.

Bayley Chinookfin Heating Sections:

Are the same design as the Chinook Heaters, using heavy gauge copper fin tubes. As compared with Chinook it is much lighter and occupies less space.

Bayley Plexfin Unit Heaters:



This unit incorporates Chinookfin radiation and Plexiform or Aeroplex fans. The fan assembly including top plate and motor is removable as a unit for maintenance and inspection. The heating element is a removable unit. Casing all welded extra heavy gauge. This is an exceptionally high grade unit at a moderate price.