

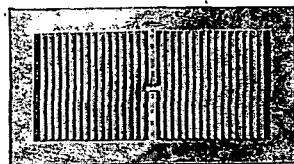
Hart & Cooley Manufacturing Co.

Established 1901

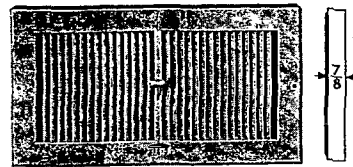
Air Conditioning Registers and Grilles - Warm Air Registers
Damper Regulators - Furnace Regulators - Pulleys - Chain
Holland, Mich.

No. 86 DESIGN REGISTER WITH TURNING BLADE VALVE ADJUSTABLE DOUBLE DEFLECTION

Available in Two Types:



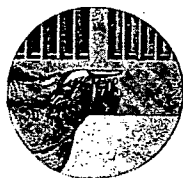
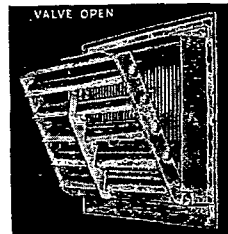
No. 861 Register $\frac{3}{8}$ In. Turndown



No. 864 Register $\frac{3}{8}$ In. Projection

Instant Adjustment of Air Flow (Up, Straight or Down)

Is obtained by turning the regulator on the register face to the proper setting with a key furnished with each register. When the valve is opened, as shown at the left, the individual valve louvers automatically stop in position to provide the proper air flow—Up (Fig. 1) for cooling systems to avoid drafts; Straight (Fig. 2) for ventilating systems; Down (Fig. 3) for heating systems to prevent stratification. When the valve is closed, as shown at the left below, it completely stops the flow of air.

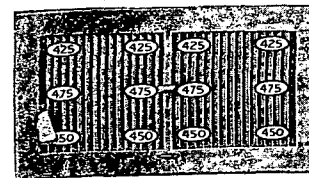
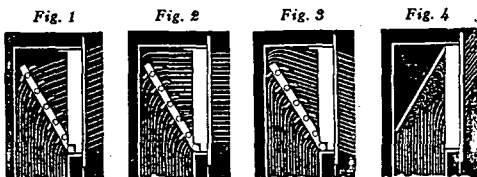


Air Flow Can be Quickly Adjusted Sideways

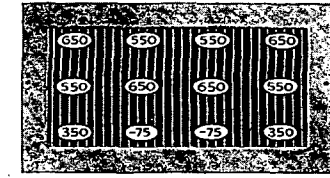
The air flow is controlled sideways by the vertical bars ($\frac{3}{8}$ in. deep on $\frac{3}{8}$ in. centers) which may be turned 45 deg to either side with the same key used for turning the regulator. The register face is divided into two sections by an attractive vertical mullion. The bars in each section are connected with each other, so that by turning one bar in a section, all the bars in that section turn simultaneously, making it a simple matter to obtain practically any sideways deflection of the air.

Greatly Reduced Turbulence and Resistance

Figs. 1, 2, and 3 show the air flow with No. 86 Design; Fig. 4, with the conventional register. Compare the turbulence in the stackhead of the latter with the smooth flow obtained with No. 86 Design. So efficient is No. 86 Design that there is actually less resistance with this register, using a standard stackhead, than if no register at all were used.



Velocities with No. 86 Design



Velocities with Conventional Register

EVEN DISTRIBUTION OF AIR OVER ENTIRE FACE

The turning blade valve on No. 86 Design distributes the air evenly with a uniform velocity over the entire face, as shown in Figs. 1, 2, and 3 on the preceding page. Note how the air rushes through the upper part of the face with a conventional register, as shown in Fig. 4. Since the entire face of No. 86 Design register is utilized for discharge of air, smaller and in some cases fewer registers can be used without causing excessive velocities.

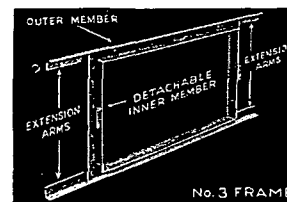
Prevention of Streaked Ceilings—With either UP, STRAIGHT, OR DOWN deflections the air does not strike the ceiling immediately in front of the register; streaked ceilings are thus avoided.

Excellent Concealment of Duct—The depth and close spacing of the vertical bars, combined with the valve, provide almost complete concealment of the duct, adding considerably to the pleasing appearance of the register face.

Special Settings—No. 86 Design functions equally well when located at the end of a horizontal duct or, by installing it upside down, when the air is delivered to it from above.

Four Types of Installation Frames Available

Nos. 861 and 864 Registers may be used with or without installation frames. The following four types of frames are available:



No. 2 Band Iron Frame—A simple inexpensive frame for sidewall or baseboard use, in old or new house installations.

No. 3 Sidewall Stud Frame (illustrated)—The ideal sidewall frame for new house installations. No blocking-in required. Frame provides permanent solid foundation for register and stackhead and eliminates possibility of streaking.

No. 5 Baseboard Stack Frame—Easy to install on old or new house work. Stackhead is held securely in place.

No. 8 Baseboard Stud Frame—Similar to No. 3 Sidewall Frame, except has greater depth to compensate for thickness of baseboard. Ideal for new house installations.

Catalog No. 39 AC Available on Request

This catalog contains a very useful 10-page section of technical data and shows the complete line of H & C Air Conditioning Grilles and Registers.