

companion proves that it does not interfere seriously with manufacturing operations nor with quality of roving produced.

Our investigations indicate the superior advantages of having side-walls of the enclosure of wood to facilitate small clearance by rubbing contact at the edge of the main cylinder, thus avoiding excessive air infiltration at that point. Wood covers have the advantage of resistance to crushing, which was evident in installations with sheet metal covers.

Connection of the enclosure to the exhaust system by means of chambers of ample dimensions, i.e., large cross-sectional area is of major importance to avoid localized high air velocities close to the webbing in the main cylinder. This detail was not always observed.

In view of similar degrees of success, judged by dust counts, between various installations, the best criterion of superior design as to details of exhaust from the machine was in the relative economy respecting volume of air exhausted per machine. Our observations indicated rather extreme variations as indicated in the following table of exhaust rates per carding set in five representative plants:

<u>Plant</u>	<u>Air Exhausted Per Set</u>
A 1/5	1500 cfm
B C. machine	2200 cfm
E	3800 cfm
G	5400 cfm
H 1/1	2000 cfm

It is apparent from this investigation that 2000-2500 cfm per set of breaker and finisher cards is ample exhaust capacity if the system is properly designed.