

TURKEY CURTAIN WALL VENTILATION

PLAN 9351 NEW 83:08

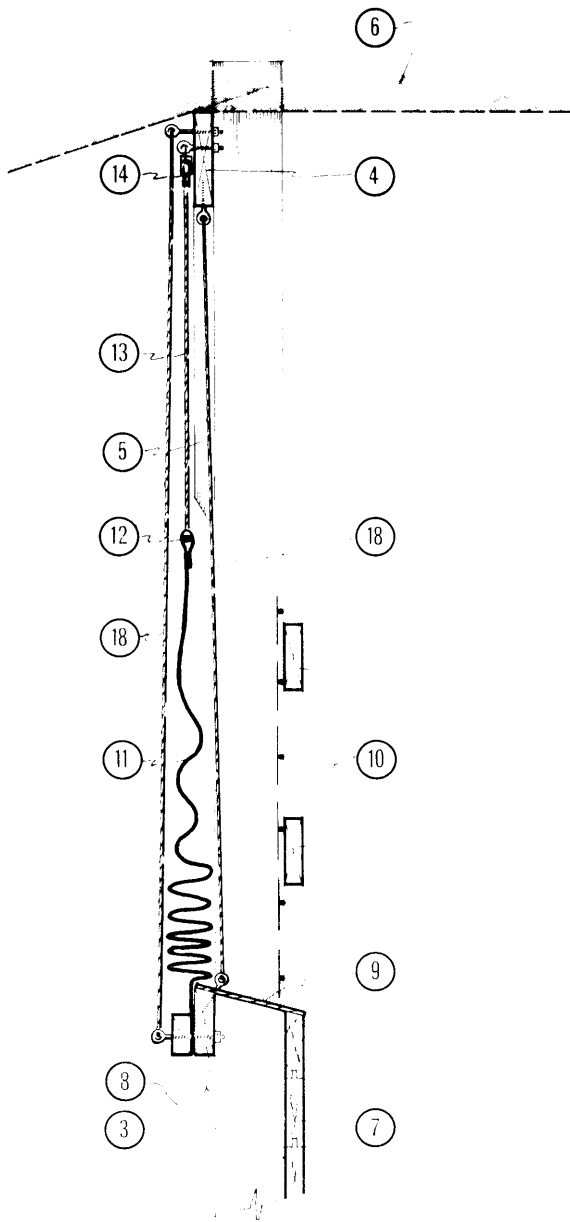
To control the rate of ventilation, most naturally ventilated barns have windows or movable panels for ventilation of cold-tolerant livestock such as beef, dairy cattle and sheep. These panels can be opened or closed as weather conditions change. Most of these openings however take too much effort to change, consequently they are seldom changed often enough for optimum control of the animal environment.

The turkey curtain provides a superior alternative. It was first used for ventilating turkey barns in southern U.S.A., hence the name. The turkey curtain consists of a tough woven plastic fabric (called 'Lumite') which replaces most of the wall (or at least the upper part). If the Lumite is not available, other fabric-reinforced plastic tarpaulin materials such as Fabrene STPNN (by Dupont Canada) could be used. Check with the manufacturer for estimated durability when exposed daily to direct sunshine. Advantages of the turkey curtain include:

- easy, rapid adjustment for changing weather, using a system of cables pulleys and boat winch. One winch controls up to 250 ft of curtain;
- maximum opening area takes advantage of summer breezes for hot weather ventilation; translucent material admits natural sunlight; costs less than comparable ventilating wall systems (about \$1/ft², 1979); opens first at the top, so that cold air is admitted well above the livestock inside.

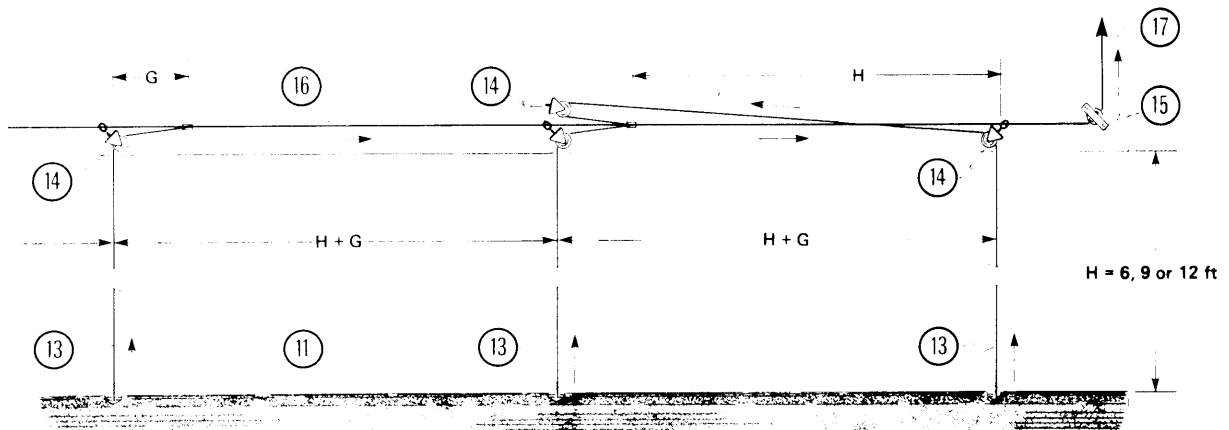
Disadvantages are that the components may not be available in all parts of Canada, and that the fabric must be protected from chewing by the livestock. This latter problem is easily resolved by placing the curtain outside the wall posts and placing suitably-spaced planks or wire fencing inside the posts.

The turkey curtain acts like a huge sail when the wind blows; it must be very securely supported to prevent wind damage. This support is provided with strong nylon or polyester plastic rope which is tightly threaded in zig-zag pattern between eye-bolts at the top and bottom of the opening. One set of roping inside the curtain prevents blow-in and another set outside prevents blow-out. Do not use the cheaper polypropylene rope, as it will deteriorate rapidly when exposed to sunlight.



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1. pole frame wall section with turkey curtain
2. typical control cable layout at end of opening
3. wall poles or studs
4. plate beam, see leaflet 9312 for plate beam requirements
5. scab (if required) is slope-cut at bottom to allow passage of curtain rod
6. roof trusses, to suit local design snow loads, see leaflet 9102
7. 2" x 6" pressure-treated tongue and groove planking to bottom of wall
8. 2" x 6" nailing strip, continuous, nailed to wall poles or studs with 4-4" spiral nails per 8ft of wall
9. 1/2" exterior sheathing plywood, face grain perpendicular to wall
10. 2" x 6" planking, or 6" x 6" welded wire mesh (Stelco Stockade or equal) to prevent livestock from chewing curtain
11. turkey curtain woven plastic fabric (commercial, lifted or lowered from top with cable and pulley system to control winch; 2" x 3" clamp strip secures bottom to 8 with lag screws
12. curtain rod; galv. steel thinwall electrical conduit threaded into sleeve sewn into top of curtain, rod ends coupled
13. 3/16" nylon or polyester opening secured to 12, thru pulley 14, cable clamps on cable 16
14. 2" diam. marine steering cable pulley, hooked to 5/16" plated screw -eye, bolted into 4
15. heavy duty marine cheek block, align to exactly bisect the angle through which the cable turns
16. 3/16" galv. steel cable, run thru screw eyes to boat winch at end of barn; winch lag-screwed to pole or studs; use winch rated to 1000 lb for curtains to 100 ft long
17. 1/2" nylon rope zig-zag threaded thru screw-eye bolts in 4 and clamp strip on outside of wall; second rope u screw-eye bolts in 4 and 8 on inside



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