

The apparatus for the ventilation of railway cars is constructed on the same principle as the "swan's neck" ventilator for buildings. We extract from the specification of the patent the following, which will give an idea of the arrangement:

"It consists essentially of a hollow casing suspended from the ceiling of the car, and having a series of openings around its base leading into a chamber formed within the casing, and which chamber is furnished with the "swan's neck" arrangement, so that the air has to pass round the alternate ends of the two parallel partitions in order to reach the upper portion of the chamber, from which it escapes through a revolving ventilator placed on the roof of the car."

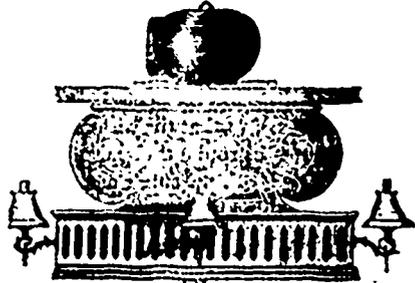


Fig. 6. Showing ventilator adjusted in the railway car.

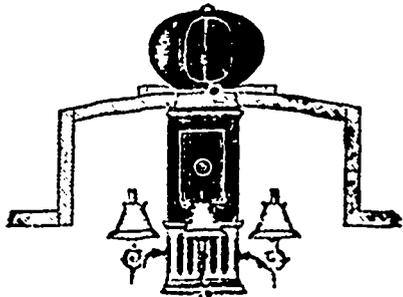


Fig. 7. Showing side view of ventilator.

The resistance of the air in a moving car furnished with this revolving dome, free to move like a vane, will always keep the opening for the exit of foul air on the lee side, and cause a suction by reason of the motion of the car. The ventilation is regulated from the inside of the car by simply moving a lever connecting with an attachment, which in its principle is quite similar to the one used in the house ventilation as described above.

Like in house ventilation, the methods hitherto employed to ventilate railway coaches, sleepers, &c., have been equally primitive and unsatisfactory. Even our "palaces on wheels," luxuriantly furnished and fitted up with every kind of comfort, are sadly lacking in that so very important element, fresh and pure air. If, therefore, Mr. Cluthe's invention sustains, what he claims for it, also in this regard, to remedy this evil which the travelling public has had to suffer for so long a time, he may rely on its being duly appreciated from wide and far, and that he will be assigned an honorable place among public benefactors generally.

A very elegantly gotten up apparatus for house ventilation, as well as a car ventilator, beautifully carved and finished in cherry, with four handsome lamps attached, have been shipped by the inventor to the Colonial and Indian Exhibition at London.

Mr. Cluthe will gladly give any further information concerning his system to anybody contemplating building a house on application and receipt of a rough sketch of the plan of the building to be erected. All the other appliances, with the exception of the "swan's neck," which he will furnish at a moderate price, can be made and adjusted by any building tinsmith, thus reducing the total cost to a minimum.

A SODA MOTOR.

The New York *Star* has the following: "A new soda motor, which performs all the functions of an ordinary locomotive, is in operation on State street, Chicago. It does not require any fire, is noiseless, does not emit any offensive smells, has no exhaust stack or steam whistle to frighten horses, and makes full as good time as the old-fashioned steam dummy. It takes only thirteen minutes to charge it, and it will run continuously for six hours after it is loaded. The Boston and Albany Railroad Company is also building a forty-ton soda fountain to haul its trains through Boston; a similar machine is in successful use upon a road in England, and a company in Minneapolis is about to close a contract that will supply all its cars with two-horse-power soda fountains."

It is obvious that this soda motor is destined to become immensely popular. As yet we have not had an opportunity to compare its cost with that of the electric motor, the only other feasible substitute for the puffing, incinerating iron horse.

MILLING FLOUR & GRAIN

Wm. Stephen's grist mill at Bowmanville was burned on Mar. 21. George Patterson & Co., miller, Alvinston, Ont., have sold out.

The *Manitowan* says it costs 40 cents a bushel in Manitoba to raise wheat or \$8 an acre, against \$12.54 cost per acre in England.

Moore & Son's mill at Oak Lake, Man., is rapidly nearing completion. No. 2 hard is selling at 82 cents there.

Midland offers to loan \$3,000 for ten years without interest to a man who will erect a roller mill there.

It is reported that the T. P. White mill at Whitevale, Ont., has been purchased by Taylor, Lount & Co., of that place.

Mr. Ezra Stiles has replaced the stones in his steam grist mill at Albert, N. B., with a set of new French burrs.

David L. McKenzie, a dealer in grain and provisions at Winnipeg, Man., has made an assignment. Liabilities estimated at over \$30,000.

Messrs. Hutchinson & Morrison, two energetic young men from Walsingham, Ont., have purchased the Tilsonburg Valley Mills from Mr. Piper.

Mr. H. W. Hill, of Woodstock, Ont., has lately been shipping large quantities of wheat to England from Woodstock, Stratford and other places.

A stock company, with a capital of \$15,000, has been formed in Wapella, Man., to build a mill. Over \$4,000 of the stock has been subscribed.

Messrs. J. Shinn & Sons have leased for a term of years their flouring mill at Nottawa, Ont. The lessees, Messrs. Hawke & Brackenridge, have had the mill thoroughly overhauled and fitted up with the most approved machinery.

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At Qu'Appelle, Assn., D. H. McMillan & Bros. entertained a large number of people at the Queen's hotel, the occasion being the opening of the Qu'Appelle roller mill, which was bonused by the municipality to the extent of \$10,000.

We learn that Mr. A. McFall's mill at Bolton, Ont., which has recently had a thorough overhauling at the hands of Mr. William Petch, of this city, is now in full operation, and is turning out a first-class article in flour. Its capacity is about 80 barrels per day.

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Little's flour mill at Teeswater, Ont., was burned to the ground at an early hour on March 19th, and nothing was saved. Incendiarism is suspected, as the tracks of a horse and cutter were traced from the mill through the village through the fresh snow fallen during the night.

The following is given as a safeguard against any smut that may be in seed grain: Dissolve 1 lb. of sulphate of copper or blue stone in boiling water, and dip your seed grain in the pickle the night before sowing. One pound of blue stone is sufficient for four bushels of wheat.

A fire occurred at Clement's grist mill, Maple Hill, three miles from Walkerton, Ont., on March 20th, caused by the upsetting of a lamp. It was fortunately put out, though not before damage was done to the amount of about a thousand or twelve hundred dollars. The property is insured in the Citizens' City of London and Western Companies.

The wastage about a mill amounts to a large item, and in itself would make quite a profit for a large mill if it could be prevented. It is claimed that the wastage of two of the Pillsbury mills at Minneapolis—the Anchor and A—is not less than \$60,000 annually, and Pillsbury & Co. have reduced the amount to what are considered minimum figures.

The F. Schumacher Milling Co. has been organized at Akron, O., with an authorized capital stock of \$2,000,000. Ferdinand Schumacher whose mills were burned subscribed \$250,000. The Akron Milling Co. subscribed \$370,000, and the balance is being taken in \$100 certificates. Very extensive mills will at once be built, it being the intention of making the company one of the greatest oatmeal and flour producers in the world, operating seven great mills.

One of the most important enterprises to be carried out in the building line the coming season will be the erection of a 1,500-hbl. mill at Montreal by the Ogilvie Milling Co. The recent visit to the city and tour of the east by Geo. Hastings, member of that firm, and P. M. Clark, head miller, was in connection with the project of the errand being to gather ideas which might be incorporated in the new mill. The mill is to be completed in time for the next crop and will make an important addition to the already existing works of Ogilvie & Co.—*Northwestern Miller*.

Secretary Hurstone of the Buffalo, N. Y., Merchants' Exchange, has compiled a report showing that the ten mills located at Buffalo, with a daily capacity of 3,850 barrels per day, made in 1885 752,262 barrels of flour. Eight mills at points tributary to Buffalo, marketing their flour there, with a daily capacity of 4,725 barrels turned out 640,500 barrels, making the gross output of the eighteen mills, whose total capacity is 8,575 barrels per day, figure up the handsome total of 1,392,762 barrels for 1885, or about 50,000 barrels more than one-half their accredited capacity for 313 working days.

As the success or failure of the wheat crop of India has now a direct bearing upon the wheat situation in this country, it will

interest handlers of Canadian grain to hear that the Indian Government has published a report, according to which the prospects of the coming wheat crop were very favorable, especially in the North-western Provinces. In the Punjab, the early cessation of the monsoon rains somewhat diminished the area under wheat, but the crops there and in the Central Provinces were in excellent condition, and the reports from the other provinces were also good. It is always difficult to understand the reports from so large and varied a territory as India. It may be safely assumed, however, according to the last accounts that the prospects are in the main for very good crops, but hardly so good as in the previous year, which was an exceptionally prolific one.

The visible supply of grain in the United States and Canada, and in transit by water, as compiled by the Secretary of the Chicago board of trade, was as follows on dates named:

	Mch. 13, '86.	Mch. 6, '86.	Mch. 14, '85.
Wheat, bus.	50,854,419	51,273,130	48,593,017
Corn, bus.	14,611,399	12,910,403	8,196,165
Oats, bus.	2,099,797	2,023,559	2,967,995
Rye, bus.	642,831	707,434	364,848
Barley, bus.	1,127,081	1,245,379	1,282,755

Totals 69,335,440 68,159,945 61,404,780
Decrease Wheat, 418,711 bus; barley, 117,298 bus; rye, 64,600 bus. Increase: Corn, 1,650,996 bus; oats, 76,018 bus.

Mr. J. Meldrum, of Paris, Ont., is to be the new proprietor of Clegg's Mills at Peterborough. He is engaged at present in overseeing the alterations and improvements which are being made in the mills. A complimentary dinner was given in Mr. Meldrum's honor prior to his departure from Paris, at which many kind and eulogistic things were said of him, as a skilful mechanic, a man of high moral character and a good citizen. The best wishes for his future success were heard on all sides. As a fitting close to the proceedings, Mr. Henry Tatum came forward and read the following address—"We, the employees of the New Paris Mills, having a great respect for our esteemed foreman, Mr. Meldrum, and regretting his departure from us, feel it our duty to present you with this gold watch as a token of our esteem. Please accept this gift from your well-wishing friends." The address was signed on behalf of the employees by Messrs. John Wiles, Harry Tatum, Thomas Button, John P. Keaveny, Henry Metcalf and Wm. Patterson.

The Lake Carriers' Association held its annual meeting at Buffalo March 10. Important action was shown to have been taken in regard to the Canadian wrecking laws, uniform bills of lading, elevator charges, shipping to American ports in Canadian bottoms, and proposed legislation. A member referred to the Lizzie A. Law grain shortage case, and suggested that the association investigate excessive grain shortage cases. Capt. Percw spoke against elevator charges. The point at issue was that the elevators exacted more money from vessels for the work of shovelers than the elevators paid them. It was thought best to seek a restriction of rates by home agitation, and a motion was made to suspend all efforts to pass a bill at Albany. It was stated that the elevator people acknowledge the rates to be too high, and it is believed they will reduce them. Capt. Millen called attention to the fact that brokers were bearing freights greatly by taking large contracts and letting them to vessels at lower rates. It was agreed that this practice was increasing rapidly and should be resisted.

E. B. Wilbur and others have about completed arrangements for the erection of a large storage and transfer elevator at Black Rock, Buffalo, N. Y. The location proposed is to admit receipts from all roads entering the west side of the city, and making delivery to all roads leading east, and to all switches on the east side of Buffalo. This elevator will enable the roads whose terminus is on the west side of the city to enter the field for Buffalo business which the heretofore limited elevator facilities have restricted. Barley dealers and shippers will be particularly benefited by this elevator. It will afford a more concentrated movement and systematic delivery of barley from Canada, and with good inspection and grading there make it a great market for that grain. The estimated requirements of Buffalo malsters is 4,000,000 bushels, of which more than one-half is Canada barley. Besides this a large portion of the enormous amount destined for other cities would, instead of lying on the tracks at Buffalo, go into store. In the matter of wheat from Michigan and corn from the southwest, the terminus of the roads being at Buffalo, this elevator would fill a long needed storage capacity, and would thus materially aid the Merchants' Exchange to accomplish the desired change in business methods.

At an early hour on the morning of the 6th of March the great oatmeal works of Ferdinand Schumacher, at Akron, Ohio, were destroyed by fire, together with other valuable property. The property destroyed consisted of two enormous mills, with a capacity of 1,400 barrels per day, one 13000-bushel grain elevator; two great engine houses, the above having a solid street frontage of 425 feet and being 90 feet deep, and, for the greater part, seven stories high, and the mills were equipped with the most approved and costly machinery. Then there was a \$50,000 dry house and elevator, Mr. Schumacher's \$70,000 banking house; three dwelling houses, the New York, Pennsylvania and Ohio freight house and telegraph office, valued at \$2,500; Weary & Kramer's architectural office, \$1,000. Mr. Schumacher's loss is fully \$1,000,000, with an insurance of only \$129,500. Besides the above insurance there is 45,500 held by Chicago agencies. There were 140,000 bushels of grain in the elevators, Mr. Schumacher having just received a large amount. Adjoining the property burned was Schumacher's Empire Mill, which was saved, and which is the mill from which have grown the great mills destroyed. Besides this property, Mr. Schumacher still has the Cascade Flour Mill, valued at \$125,000, a starch mill and much valuable real estate. He says he will not rebuild, as he does not want to borrow the money, which he would have to do. It is, however, quite probable that the mills will be rebuilt the coming summer, as a large number of capitalists met after the fire and appointed a committee to confer with Mr. Schumacher as to forming a company with \$1,000,000 capital, which plan Mr. Schumacher favors. The fire was caused by overheating the dry house. Five engines from Kent, Cleveland and Canton responded, but, coming late, were of little service.