#### MINNEAPOLIS, MINN., Feb. 10th, 1868.

MESSRS. W. A. PENNELL & Co.-Gents :- This morning the thermometer was 36 degrees below zero. Your Air-Warmers in the South Minneapolis school house, one hour after the fire was made, had every part of the house comfortable. The house accommodates 250 pupils. During the day every pupil and teacher in the building was confortable, except in one room, which, for about half an hour, was too warm ; but by closing off the heat a short period, its exhaustion was so complete that its temperature became delightful and pleasant. The janitor informs me that, for the day, he burned one-fourth of a cord of wood in the two Air Warmers of this house. In another school building in the city, accommodating 750 pupils during this same day, where there are four furnaces, manufactured by other parties, in which the janitor informs me he burned 11 cords of wood, we could not make the pupils nor teachers comfortable. We are fully convinced by this and other previous experiments, that your Air-Warmers and System of Ventilation are superior to anything in use.

Very respectfully,

#### A. S. KISSELL,

### Superintendent of Public Schools.

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### MINONK, ILL., May 25th, 1868.

MESSES. W. A. PENNELL & Co.—Gents :—My house in this place is warmed and ventilated on the Ruttan plan; and, from my experience with it during the past winter, I would cordially recommend it to all about to build. There is only one fire to tend—and that in the cellar—to warm the whole house; and as for saving fuel, I can keep my whole house warm constantly with no more fuel than would be necessary to heat my sitting room and parlor alone, in the old fashioned way, with stoves.

# C. H. WHITAKER.

## BLOOMINGTON, ILL., May 19th, 1868.

W. A. PENNELL & Co.:—Your favor of the 15th instant, asking for facts in reference to "Ruttan's System of Ventilation and Warming," as it works in our new school house, is before me; and in answer, allow me to say—first: I am happy to answer questions in this regard. for the reason that the sconer we learn and act upon the great principles of ventilation and warming, the sconer shall we commence to live upon pure air in our houses, school rooms and churches. Mr. Ruttan has the honor of being the first man to understand, adopt and promulgate the true system. When once understood the "System" is perfectly simple; and a mechanic who understands it, can not make a mistake in applying it to a building. This system of warming and ventilation is excellent when applied to and used in a private residence; it is almost indispensible in a modern church edifice; but it is in the school house, where all our children

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