A PERFECTED HEATING SYSTEM

VACUUM HEATING COMPANY

1215 Filbert Street

Philadelphia

What We Claim For The Trane Vacuum System

First—An increase of comfort
Second—Under perfect control
Third—Can be regulated to suit all kinds of weather
Fourth—A saving in fuel
Fifth—Simplicity and ease of operation
Sixth—Absence of foul gases
Seventh—Absence of drip from radiators
Eighth—Requires less space than the water system
Ninth—Overcomes danger of freezing and flooding.

Residence, Dr. GEO. DARBY, Philadelphia

IT IS A WELL KNOWN FACT

That steam can be quickly circulated and is highly effective for cold weather heating but that attempts to suit mild weather conditions have met with repeated failure.

ALSO—

That the Water method of heating has largely supplanted steam, owing to the better temperature regulation obtained by water circulation, due to the practicability of circulating it at a lower temperature than steam. Water, however, is slow to take on heat, and in cooling, on account of the large volume to be handled. In our climate this is a serious drawback.

Thus BOTH steam and hot water as ordinarily used have their advantages and disadvantages.

PRESTON HOSPITAL, PHILADELPHIA

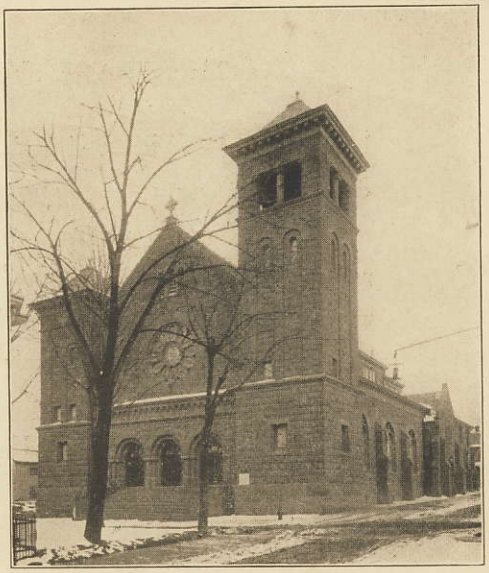
THE TRANE SYSTEM OF HEATING

Has All The Good Points of Both Steam and Hot Water heating and *absolutely eliminates their disadvantages.*

The *Trane Mercury Seal* and the other special parts that we have perfected and patented have solved the difficulties both of high and low temperatures. These specialties being simple in construction and of the highest quality and finish need only to be applied in a proper and intelligent manner to make the system

THE BEST THAT IT IS POSSIBLE TO INSTALL.

LU LU TEMPLE, Philadelphia



LUTHERAN CHURCH, Waynesboro. Pa.

ECONOMY OF THE SYSTEM

We not only give better satisfaction with the TRANE SYSTEM of HEATING but we *guarantee* a saving of at least 25 per cent. in coal. This being the case, the question of the cost of installation is of minor importance, but as an actual fact it costs no more to install the system than it costs to install a first class system of Hot Water heating.

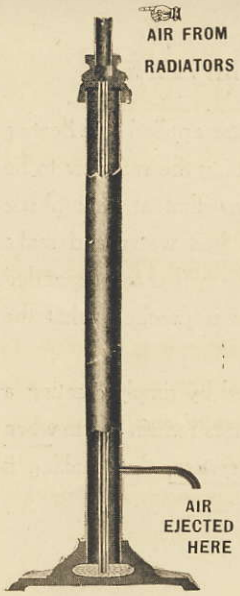
Besides the saving in fuel and the moderate cost of installation, the apparatus is more Automatic than any other system and consequently REQUIRES LESS CARE.

Residence. S. P. HOLTON. Philadelphia

WHAT THE VACUUM ACCOMPLISHES.

VACUUM is no more or less than a void, and where applied to a heating system removes the atmospheric pressure, thus permitting the radiators to be filled with a vapor at low temperatures. We all know that at atmospheric pressure it requires a temperature of 212° Fahr., to boil water and make STEAM. Under a VACUUM, the water may be boiled and expanded into VAPOR at much lower temperatures. This is precisely what the TRANE VACUUM SYSTEM accomplishes.

The *air* in the radiators, piping, etc., is expelled by simply creating a pressure of a few ounces in the boiler, and the radiators remain warm when no heat whatever could be obtained from a steam system, thus making it possible to maintain a uniform temperature at all seasons.



THE TRANE MERCURY SEAL.

Is the acme of simplicity.
A liquid seal of mercury.
No adjustments, indestructible,

HAS

No valve seat to leak or clog,
No springs requiring constant adjustment.
No *diaphragms* to wear out.
No floats to collapse and sink.

AND

WILL HOLD VACUUM

BECAUSE IT CANNOT LEAK.

THE MERCURY SEAL prevents the return of air into the system and the apparatus may be operated under VACUUM and low temperatures, securing a *mild heat* same as with a *Hot Water System.*

THE TRANE AIR VALVE

Steam cannot waste or short circuit into the neighboring radiators,

insuring

the INDEPENDENT OPERATION of every radiator.

During severely cold weather it is desirable to have a strong, positive heat, the apparatus may then be operated under pressure and at temperatures as *high as 250°* Fahr.

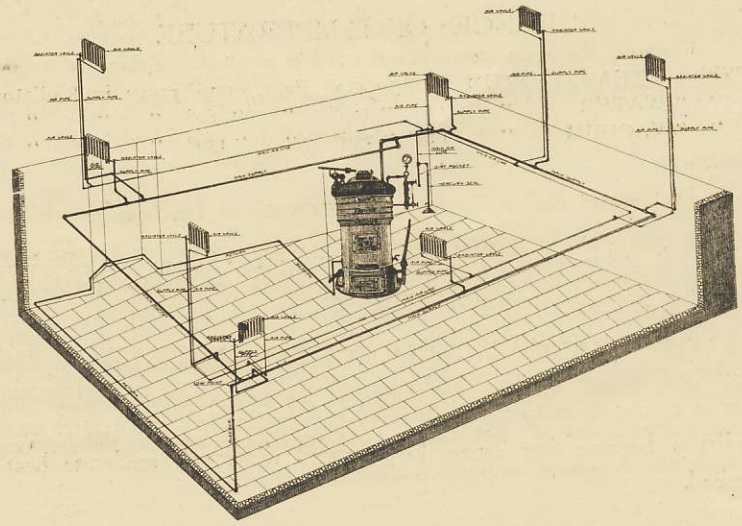
A comparative table of temperatures in the before mentioned systems may be shown here.

Residence, P. M. SHARPLESS, West Chester, Pa.

RANGES OF TEMPERATURE

With a	STEAM	SYSTEM	212°	to	250°	Fahr. or	38°	range in	Radiators.
"	" WATER	"	120°	"	180°	"	" 60°	" "	"
"	" VACUUM	"	120°	"	250°	"	" 130°	" "	"

It will be readily seen that the TRANE VACUUM SYSTEM has the combined range of both steam and hot water. Therefore, it is not necessary to disfigure the rooms with immense radiators and pipes such as are required with water to heat in severely cold weather, nor is it necessary to put up with the discomfort of overheated steam radiators because they cannot be regulated when only moderate heat is desired.



A Plan Showing Piping of TRANE VACUUM SYSTEM in Residence

CONSTRUCTION

Primarily the apparatus is constructed in a manner similar to a good steam plant with the addition of the air lines from the Trane Thermostatic Air Valve to the Mercury Seal which may be located any place in the basement.

The system can be applied to all classes of buildings in which a heating system can be utilized. It can be readily applied to an old steam heating apparatus, at a cost of about one-third of substitution of a new hot water plant.

THE TRANE VACUUM SYSTEM requires no larger radiators than with steam, and can be regulated for any kind of weather, thus insuring the means of obtaining a uniform temperature in the building, irrespective of outside weather conditions.

SCHOOL HOUSE, Loweilville, Ohio

We append an interesting table showing the temperature of vapor under various pressures:

Vacuum	gauge	29	in.	102	deg. Fahr.
"	"	25	"	133	" "
"	"	20	"	161	" "
"	"	15	"	178	" "
"	"	10	"	191	" "
"	"	5	"	203	" "
"	"	0	"	212	" "
Pressure	"	1	lb.	215	" "
"	"	2	"	219	" "
"	"	3	"	222	" "
"	"	4	"	225	" "
"	"	5	"	227	" "
"	"	6	"	230	" "
"	"	7	"	232	" "
"	"	8	"	235	" "
"	"	9	"	237	" "
"	"	10	"	240	" "
"	"	15	"	250	" "

Any radiator can be shut off when not needed and as there will be no water left in the radiators there can be no freezing.

The system entirely *overcomes* the snapping and cracking *sounds* so unpleasant with ordinary steam radiators and it also completely stops the escape of *foul gases* from radiators into the apartments which is a constant danger to health with other systems. This in itself is a great point where sanitation is studied.

Bank Building, FIDELITY TRUST COMPANY, Philadelphia

Residence, W. M. STEIGERWALT, Philadelphia

Residence, W. H. MILLARD, Oak Lane

COST

The first cost is more than steam but compares favorably with a Hot Water Plant. The item of repairs is less than with any other system and the saving in fuel pays its cost over steam in a short time.

The VACUUM HEATING CO. do not install plants. Prices and information can be obtained from your Constructing Engineer.

REFERENCES

The TRANE VACUUM SYSTEM has been operating successfully for the past seven years, and to-day over 2000 plants are in use in all kinds of buildings. The increasing demand for TRANE apparatus from unsolicited customers is our best reference.

Residence, JOHN BRENNER, Youngstown, Ohio

Operation CHAS. S. METZER, Philadelphia

CITY HALL. Cumberland, Md.

Business Building. H. KAHN, Philadelphia.

Residence. Mr. THOMAS. Youngstown, Ohio.

LIFE

This apparatus will last a life time. It is simple in construction, well built and besides this it is less liable to wear and tear than any other system because it does its work without being crowded or pushed, and is not subjected to such frequent high temperatures.

We can only add that any one seeking to secure a strictly first-class modern and economical heating plant will find it to his interest to thoroughly investigate the TRANE VACUUM SYSTEM before deciding on any other method of heating.

Vacuum Heating Company,

1215 Filbert Street,

PHILADELPHIA.