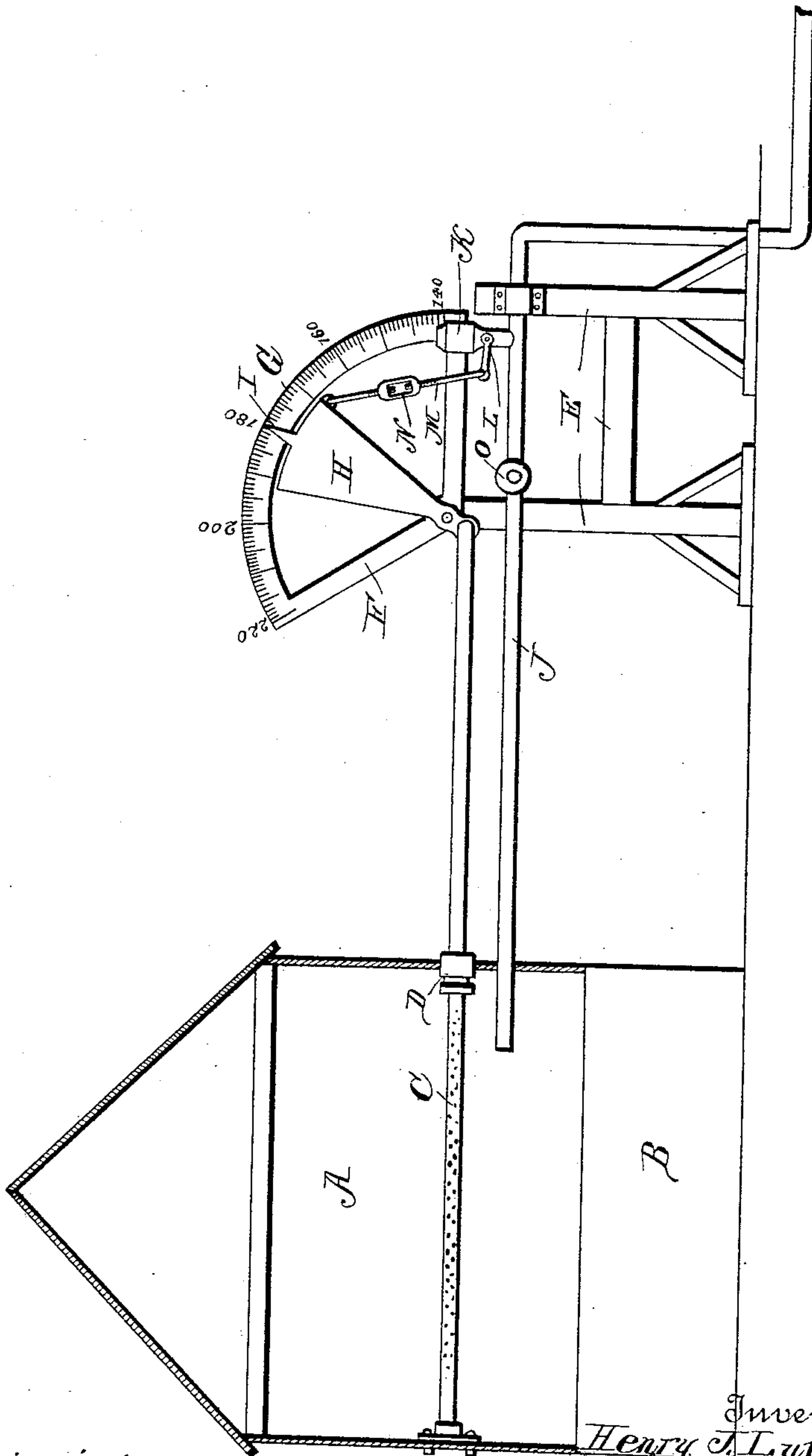


(No Model.)

H. J. LUTCHER.
THERMOSTATIC SIGNAL.

No. 389,584.

Patented Sept. 18, 1888.



Witnesses

Henry G. Dietrich
R. W. Bishop,

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UNITED STATES PATENT OFFICE.

HENRY J. LUTCHER, OF ORANGE, TEXAS.

THERMOSTATIC SIGNAL.

SPECIFICATION forming part of Letters Patent No. 389,584, dated September 18, 1888.

Application filed February 28, 1888. Serial No. 265,584. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. LUTCHER, a citizen of the United States, residing at Orange, in the county of Orange and State of Texas, have invented a new and useful Improvement in Thermostats for Regulating the Temperature of Lumber-Driers, of which the following is a specification.

My invention relates to improvements in thermostatic signals; and it consists in certain novel features hereinafter described and claimed.

The object of my invention is to provide a device whereby an alarm will be automatically sounded when the temperature of the drier has reached too high a point.

In the accompanying drawing I have shown a side elevation of my improved device applied to a dry-house, the latter being shown in vertical section.

Referring to the drawing by letter, A designates the dry-house, having the usual furnace, B, in its lower end, as shown. At a proper point of the dry-house I arrange a horizontal hollow perforated tube or thermal bar, C, which is secured at one end rigidly to one side of the dry-house and passes through a guide, D, in the opposite side of the dry-house and projects beyond the same, as shown.

At a suitable distance from one side of the dry-house I erect a frame, E, on which is secured and supported a quadrant, F, having a graduated scale, G, on its curved side. A lever-arm, H, is fulcrumed to the quadrant at the angle of the same, and carries a pointer, I, at its outer end, which plays in front of the scale G, as shown. The outer end of the hollow tube or thermal bar C is pivoted directly to the end of the lever-arm H near the fulcrum of the same.

J designates a steam-pipe, which communicates with and extends from a suitable steam-boiler, (not shown,) and has one end extending through an opening in one side of the dry-house and entering the same at a suitable distance from its bottom. This steam-pipe is provided with a valve, O, by means of which the steam may be cut off from the drier. In practice I intend to have this valve connected to the lever-arm H, so that in case of fire the valve will be opened and steam admitted to the drier to extinguish the fire. I have not

shown this arrangement in the present case, as it forms the subject-matter of a separate application.

K designates a steam-whistle of the usual construction, which is secured to the steam-pipe, and is provided with the usual valve or stop-cock, L. To the lever or handle of said cock is pivoted the lower end of a rod, M. The upper end of said rod is pivoted to the upper end of the sweep or lever-arm D, and said rod is made extensible and adapted to be adjusted in the direction of its length by providing it with a turn buckle, N.

The operation of the device is as follows: When the heat in the drier becomes so great as to endanger the lumber therein, the tubular rod or thermal bar expands to such an extent as to sweep the lever-arm over the scale of the quadrant a sufficient distance to draw on the rod M and cause the latter to turn the stop-cock L, and thereby sound an alarm, the steam in the pipe not expended in sounding the whistle passing into the dry house and extinguishing the fire.

It will thus be seen that I have provided a very simple and efficient device by which the temperature of the dry-house can be readily ascertained at any and all times, and should the heat reach a given point an alarm will be instantly sounded, attracting the operator's attention, so that the proper steps can be taken to overcome or obviate the threatened danger.

By adjusting the rod M, as described, the device can be regulated so that the whistle will be sounded when the heat has reached a higher or lower point, as will be readily understood.

Having thus described my invention, I claim—

1. The combination, with the dry-house and the frame erected at one side thereof, of the sweep arm or lever fulcrumed on said frame, the expansible rod or tube secured within the drier and projecting therefrom and having its end pivoted to the sweep-arm below its fulcrum, the steam-pipe, the whistle mounted thereon and having a valve, and the longitudinally-adjustable rod having its upper end pivoted to the sweep-arm and its lower end connected to said valve, as specified.

2. The combination, with the dry-house, of the sweep arm or lever, the expansible rod or

tube secured within the drier and projecting therefrom and having its end pivoted to the sweep-arm below its fulcrum, the steam-pipe, the whistle mounted thereon and having a
5 valve, and the longitudinally-adjustable rod having its upper end pivoted to the sweep-arm and its lower end connected to said valve, as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HENRY J. LUTCHER.

Witnesses:

J. H. SIGGERS,
E. G. SIGGERS.