

R. DUNWODY.
 RECORDING AND INDICATING THERMOMETER FOR STILL.
 APPLICATION FILED MAR. 11, 1911.

1,035,952.

Patented Aug. 20, 1912.

Fig. 1.

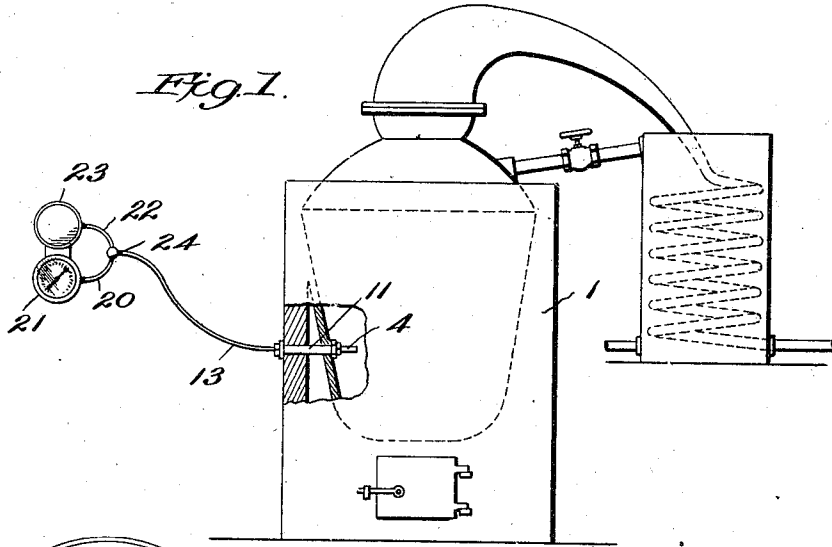


Fig. 2.

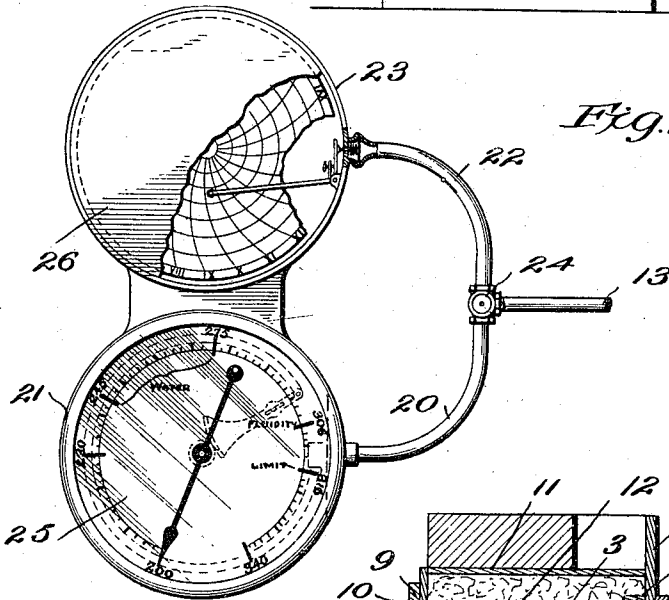
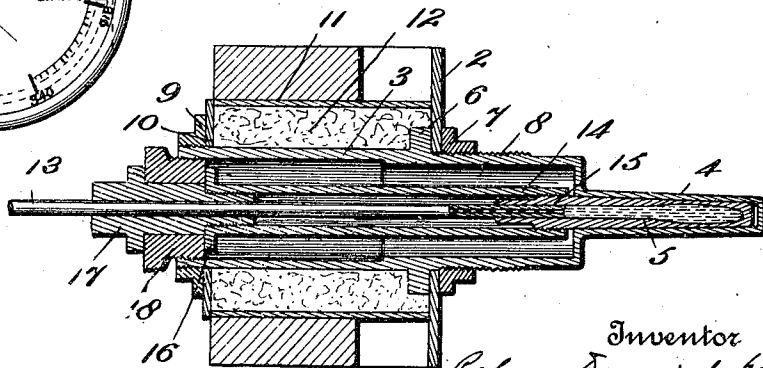


Fig. 3.



Witnesses
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 Attorneys

UNITED STATES PATENT OFFICE.

ROBSON DUNWODY, OF KIRKWOOD, GEORGIA, ASSIGNOR TO NEAL NAVAL STORES COMPANY, A CORPORATION OF GEORGIA.

RECORDING AND INDICATING THERMOMETER FOR STILLS.

1,035,952.

Specification of Letters Patent. Patented Aug. 20, 1912.

Application filed March 11, 1911. Serial No. 613,933.

To all whom it may concern:

Be it known that I, ROBSON DUNWODY, a citizen of the United States, residing at Kirkwood, in the county of Dekalb and State of Georgia, have invented certain new and useful Improvements in Recording and Indicating Thermometers for Stills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to indicating and recording thermometers especially adapted for use in connection with the operation of distilling resinous gums, and has for its object to produce an instrument of this nature which will be more reliable, and comparatively more simple and less expensive to construct than those heretofore proposed, and also one which, while constantly giving to the distiller the temperature at all times inside the still, will keep a separate and private record not accessible to the distiller for the use of the superintendent or other person.

To these ends the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claim.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—Figure 1 is a diagrammatic view in elevation of a still with my invention applied thereto; Fig. 2 is an enlarged detail diagrammatic view partly broken away of the indicating and recording instruments operated by my thermometer; and, Fig. 3 is an enlarged sectional view of a portion of the still with my thermometer in place.

1 indicates any suitable form of still, 2 the walls thereof, and 3 a hollow sleeve provided with a closed extension 4 fitted to said walls, projecting inside the still, as shown, thereby forming a closed pocket into which the thermometer bulb 5 may be placed. The said extension 4 is interiorly tapered, as shown, and the thermometer bulb 5 is correspondingly tapered in order that a close metallic fit may be had between the said bulb and extension throughout the length of the bulb.

6 represents a flange rigid with the sleeve

3, and 7 a lock nut screw-threaded on the portion 8 of said sleeve, and adapted to hold in connection with the said lug 6 the sleeve 3 firmly in place. 9 represents another lock nut screw-threaded upon the opposite end of the sleeve 3 and adapted to fit against the collar 10, fitting the tube or casing 11 inclosing the asbestos or other heat insulating material 12, which surrounds the tube 3.

The thermometer bulb 5 is preferably made of metal such as steel and has fitted thereto the metal pipe 13, which is also preferably of steel, and the sleeve 14 is screw-threaded to said bulb as at 15 and extends along said pipe 13 substantially the length of the tube 3. Said sleeve 14 is preferably flanged at its opposite end as at 16 and is fitted to the plug 17 through which the tube 13 passes, and over the plug 17 is fitted the adjusting nut 18, as shown. This nut, 18 preferably screw threads into the sleeve or casing 3 and abuts the flange 16 when the parts are in place. The said tube 13 is conveniently led a suitable distance to the recording and indicating instruments, where it is provided with the branch 20 leading to the indicating instrument 21, and also is provided with the branch 22 leading to the recording instrument 23. A cock 24 controls the communication between the pipe 13 and the branch pipes 20 and 22. The said indicating instrument 21 is suitably graduated, as shown, and is provided with a glass face 25 through which the indications of the temperature inside the still may be at all times observed by the distiller, but the recorded indications on the recording instrument 23 are hidden from view by means of the opaque covering 26, which may be locked in place by any suitable means, not shown. The purpose of preventing the distiller from seeing the records made upon the instrument 23 is to afford a check on his operation of the still, and to enable his superior to determine at the expiration of any given time, whether or not the still has been properly operated. This is a matter of some importance in the distillation of turpentine, where the labor employed is not always of the most reliable character.

Since the column of mercury divides at 24 it requires that the mercury column move twice the distance it would otherwise move if only a single column were employed. It, therefore, follows that any interference with

the conductivity of heat across the extension 4, and into the bulb 5, would be indicated in both instruments, thus doubly insuring evidence of improper working in the still. It results from this, that it is of the utmost importance to have a good conducting path across the joint between the casing 4 and the bulb 5. It is also of the utmost importance that the bulb 5 be capable of a ready withdrawal from the still and a ready insertion into the still, in order that when it is broken or otherwise out of order, a new instrument can be readily replaced or the old one repaired without interfering with the distilling operation.

Now, to secure a means of readily removing and replacing the thermometer in the still without disturbing the distilling operation, the extension 4 is provided, and this with the tube or casing 3 constitutes a closed pocket which enables the thermometer to be readily entered into the still and taken from the still without opening the same. And, in order to secure a ready transference of heat from the still to the mercury in the thermometer bulb, the closely fitting tapered surfaces on said bulb and extension are provided, which insure a metallic contact throughout the length of said bulb and extension, and therefore afford a minimum resistance to the passage of heat across the joint between the said parts. It results, therefore, from this structure that a pair of instruments such as 21 and 23 operated from the single tube 13 will be far more efficient when fed with mercury from a tapered bulb inclosed in a tapered extension than would be the case were the bulb cylindrical, or were any other joints between the two parts adopted. Should the bulb be a cylindrical shape, then it is evident that it might have a metallic contact with the extension only at one or two points, and thereby practically insulate the flow of heat into the mercury. On the other hand, it is not practical to have the bulb exposed inside the still, not only on account of the still being open when the thermometer is withdrawn, but also on account of the stirring instruments employed in the still being liable to contact with the bulb and break the same. But by providing the adjusting nut 18 which is adapted to force the bulb 5 firmly into contact with the interior of the extension 4, I am enabled to

get a joint between the parts of a maximum conductivity.

In some cases it may be desirable to coat the bulb 5 with copper as by dipping the same into a copper sulfate solution or by other means, in order that a soft metal coating may be had between the interior of the extension 4 and the exterior of said bulb, but I do not find this precaution necessary when the adjusting nut 18 is employed. Of course, when the bulb is coated with copper, it is a comparatively simple matter to further coat it with mercury and thereby get possibly a still better contact, but I do not find this precaution necessary in practice.

When the still is equipped with instruments such as those above described, I find that it is thoroughly practicable to employ cheap labor to operate the still, and for the reason that should the record which is concealed from the operator show that he is not adding water to the still at the proper times, or has neglected his duty otherwise, he can be at once held to account for his negligence and improved results secured at once.

This case differs from my co-pending application filed March 8, 1911, Serial No. 613,073, and entitled thermometers, in that the said application does not disclose the indicating and recording instruments as are disclosed herein.

It is obvious that those skilled in the art may vary the arrangement of parts and the details of construction without departing from the spirit of my invention, and therefore I do not wish to be limited to such features except as may be required by the claim.

What I claim is:—

The combination with a still having an interiorly tapered pocket; of a thermometer having a bulb fitting in said pocket; means for forcing said bulb into tight metallic contact with said pocket; an indicating and recording instrument; and a branched connection between said bulb and said indicating and recording instruments, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

ROBSON DUNWODY.

Witnesses:

T. A. WITHERSPOON,
R. M. PARKER.



US00RE35952C2

(12) **EX PARTE REEXAMINATION CERTIFICATE** (10642nd)
United States Patent
Beery

(10) **Number:** **US RE35,952 C2**(45) **Certificate Issued:** **Jun. 24, 2015**(54) **TELEVISION RECEIVER HAVING MEMORY CONTROL FOR TUNE-BY-LABEL FEATURE**(75) **Inventor:** **Jack Beery**, Washington, DC (US)(73) **Assignee:** **TECHNOLOGY DEVELOPMENT & LICENSING, LLC**, Henderson, NV (US)**Reexamination Request:**

No. 90/013,219, Apr. 23, 2014

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Issued: **Nov. 10, 1998**
Appl. No.: **08/116,019**
Filed: **Sep. 2, 1993**

Reexamination Certificate C1 Re. 35,952 issued Apr. 22, 2014

Related U.S. Patent Documents

Reissue of:

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Issued: **Sep. 3, 1991**
Appl. No.: **07/514,693**
Filed: **Apr. 26, 1990**

Related U.S. Application Data

(63) Continuation-in-part of application No. 07/359,155, filed on May 31, 1989, now Pat. No. 5,068,734.

(51) **Int. Cl.**
H04N 5/50 (2006.01)
H04N 21/40 (2011.01)

(52) **U.S. Cl.**CPC **H04N 21/40** (2013.01)(58) **Field of Classification Search**

None

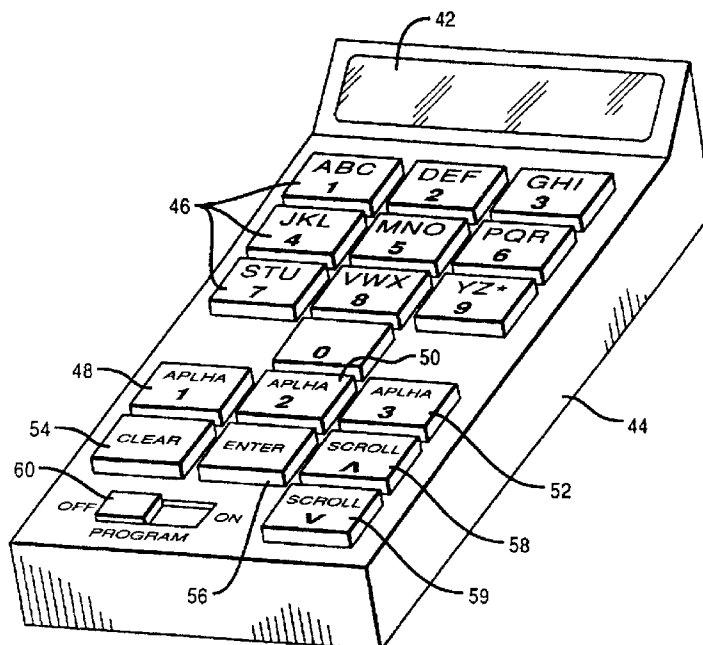
See application file for complete search history.

(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/013,219, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Eron J Sorrell(57) **ABSTRACT**

A television control system is for selecting as television channel corresponding to a preassigned channel tuning designation. A tuner receives multi-channel input signal, and in response to a processor signal, tunes out all but one selected channel. A memory stores at least one operator-assigned channel select designation for the channel tuning designations. An operator-actuated control means generates a first data signal representative of a desired channel select designation for one of the channel tuning designations, and a second data signal representative of a desired viewing channel identified by one of the channel select designations. A processor receives the first data signal from the control means, and in response, causes the memory to store the desired channel select designation as corresponding to the tuning designation. Upon receipt of the second data signal, the processor retrieves from the memory the channel tuning designation corresponding to the channel select designation, and generates the processor signal to correspond to the channel tuning designation.



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**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

5

NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

10

The patentability of claims **1, 2, 8, 9, 37, 38** and **42-44** is
confirmed.

Claims **5-7, 10-36, 39-41** and **45-53** were previously
cancelled.

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Claims **3** and **4** were not reexamined.

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