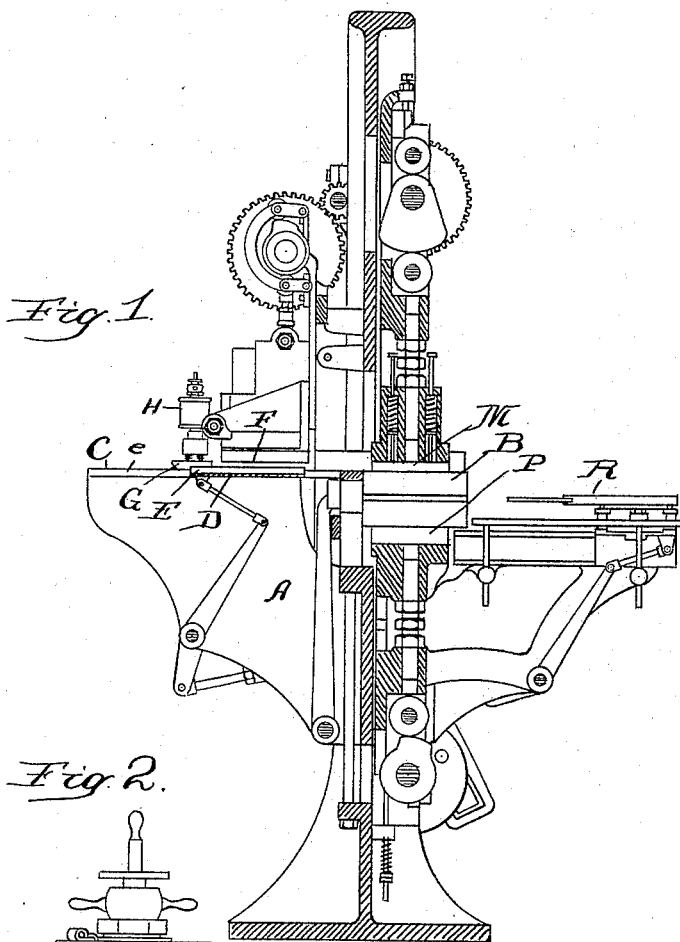


(No Model.)

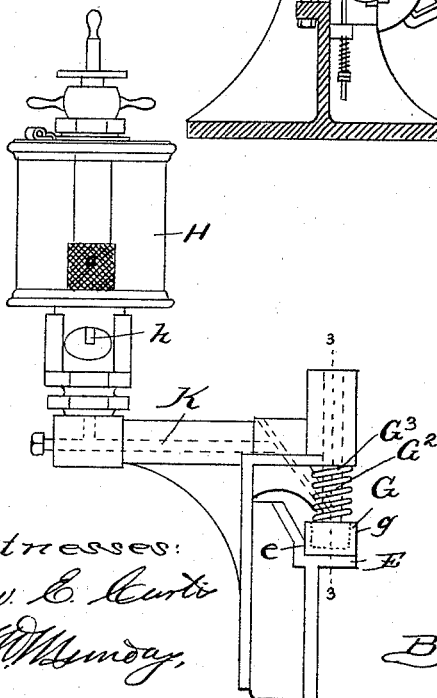
A. W. LIVINGSTON.  
CAN BODY FORMING MACHINE.

No. 489,969.

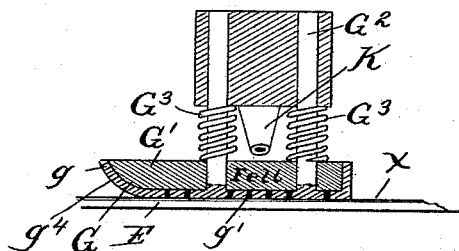
Patented Jan. 17, 1893.



*Fig. 2.*



*Fig. 3.*



Witnesses:  
Sew. C. Curtis  
H. W. Munday,

Inventor:  
Andrew William Livingston.  
By Munday, Curtis & Adeock  
His Attorneys.

# UNITED STATES PATENT OFFICE.

ANDREW WILLIAM LIVINGSTON, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR  
TO EDWIN NORTON, OF MAYWOOD, AND OLIVER W. NORTON, OF CHICAGO, ILLINOIS.

## CAN-BODY-FORMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 489,969, dated January 17, 1893.

Application filed August 4, 1892. Serial No. 442,125. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW WILLIAM LIVINGSTON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in Can-Body-Forming Machines, of which the following is a specification.

My invention relates to machines for making can bodies and more particularly to fluxing attachments therefor.

My invention may be used with or applied to any ordinary form of can body forming machine heretofore known or used and wherein mechanism is employed for advancing through or feeding to the machine the sheet metal blanks out of which the can bodies are formed.

My invention consists in the combination with a can body forming machine, mechanism or device of any suitable construction, or its sheet metal blank feed mechanism, of a device for applying to the edges of the sheets which are to be united or folded together to form a seam, a suitable flux. The fluxing mechanism consists preferably of an ordinary oil feed device, preferably a "sight feed oiler" such as are commonly in use on engines or other machinery for lubricating purposes, in combination with a shoe or pad to which the oil flux is supplied by the oiler, and by which the flux is applied to the edge or edges of the sheets which are to form the seam.

For convenience in illustrating my invention I have in the accompanying drawings shown it as applied to the style of can body forming and side seam soldering machine which is shown and described in Letters Patent No. 395,788 or 395,795 both dated January 8, 1889. My invention may however be applied to any other form of can body forming mechanism, such for example as that shown and described in Letters Patent No. 250,266 dated November 29, 1881, or that shown and described in other patents of the United States heretofore granted on can body forming or making mechanisms.

In the accompanying drawings which form a part of this specification and in which similar letters of reference indicate like parts, Figure 1 is a side elevation, partly in vertical

longitudinal section, of a machine embodying my invention; Fig. 2 is an enlarged detail end view of the oiling and fluxing mechanism; Fig. 3 is a detail section on line 3—3 of Fig. 2.

As the construction of the can body forming and side seam soldering machine to which my invention is applied is now well known to those skilled in the art, and is the same as that fully shown and described in the Letters Patent hereinabove referred to, and as my improvement is independent of the particular construction of this part of the mechanism, it will be sufficient to refer to the Letters Patent above referred to for a full explanation of this part of the mechanism.

In the drawings A represents the frame of the machine, B the can body former horn, C the feed table, E E the guides which support and guide the sheet or blank as it is advanced by the feed slide D to the edge folding devices F by which the edges of the sheet are folded to form hooks. The guides E have upright flanges or parts *e* for the edges of the sheet to abut against. As the blank X is fed to or advanced by the feed device D along the guides E the two opposite edges pass under the fluxing device G, the same consisting preferably of a metallic shoe having upright flanges *g*, perforations *g'* in its bottom and in which fits a felt or other absorbent pad G'. The oil flux is supplied gradually to this fluxing device from a suitable oil feed device H, the same consisting preferably of an ordinary "sight feed oiler" such as are now generally in use for lubricating purposes and well known to those skilled in that art. From the drip nozzle *h* of the oiler H, the oil flux is fed or delivered to the fluxing device G through a suitable duct or connection K. The fluxing device or shoe G is supported on the frame of the machine above the guides E to coact therewith by means of the pins G<sup>2</sup>, the shoe being pressed against the edges of the sheets as they pass under the shoe by means of the springs G<sup>3</sup>. The receiving end of the shoe G is turned up as indicated at *g*<sup>4</sup> to admit the sheets being passed readily under the same by the feed device.

M represents the mechanism by which the sheet is folded down around the horn, P the

device for squeezing or compressing the seam against the horn, R the mechanism for delivering the can body from the horn to the carrier of the soldering machine. All these parts as well as the other parts of the can body forming and side seam soldering machine are fully shown and described in the patents hereinabove mentioned and it is therefore not necessary to here repeat the same.

10 I claim:—

1. In a can body forming machine the combination with its horn, edge folding or hook forming devices, mechanism for folding the blank around the horn, seam compressing device and the guides for the sheets or blanks, of a feed device for advancing the sheets along the guides, and a fluxing device for applying flux to the edges of the sheets before they are folded together to form a seam, substantially as specified.

2. In a can body forming machine the combination with its horn, edge folding or hook forming devices, mechanism for folding the blank around the horn, seam compressing device and the guides for the sheets or blanks of a feed device for advancing the sheets along the guides, a fluxing device for applying flux to the edges of the sheets before they are folded together to form a seam, and an oil feed device for feeding or delivering the liquid flux to said fluxing device, substantially as specified.

3. The combination in a can body forming device of a feed device and guides for the blanks with a fluxing device comprising or furnished with a flanged perforated shoe and

a felt or absorbent pad, substantially as specified.

4. The combination in a can body forming device of a feed device and guides for the blanks with a fluxing device comprising or furnished with a flanged perforated shoe and a felt or absorbent pad, and springs for pressing the fluxing device against the edges of the blanks as they pass under the same, substantially as specified.

5. The combination in a can body forming machine of its body forming horn, edge folding devices, mechanism for forming the can bodies around the horn and device for compressing the seam against the horn, guides for the blanks, mechanism for advancing the blanks along said guides, a flux applying device or shoe and an oil feed device, substantially as specified.

6. In a can body forming machine the combination with its body forming horn, edge folding devices, mechanism for folding the blank around the horn, and device for compressing the seam against the horn, of guides for the blanks and means for advancing the blanks along said guides, a fluxing device or shoe for applying flux to the edges of the blanks as they pass in contact with said device and springs for pressing the fluxing device against the edges of the blank, substantially as specified.

ANDREW WILLIAM LIVINGSTON.

Witnesses:

LINCOLN SONNTAG,  
WM. SWALLOW.