Feb. 10, 1959 N. C. JACKSON ET AL 2,872,718

VENT CLAMP FOR USE WHEN CLEANING COATS

Filed Nov. 25, 1955

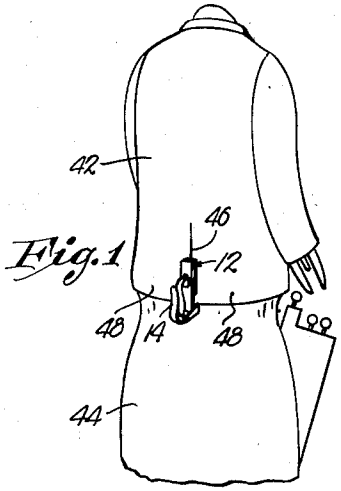



Fig. 1

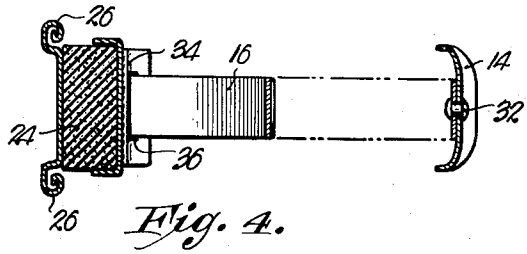



Fig. 4.

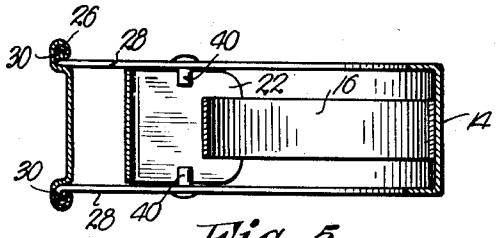



Fig. 5.

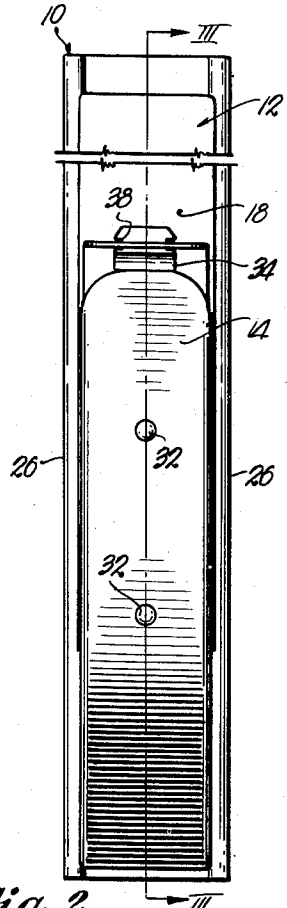



Fig. 2.

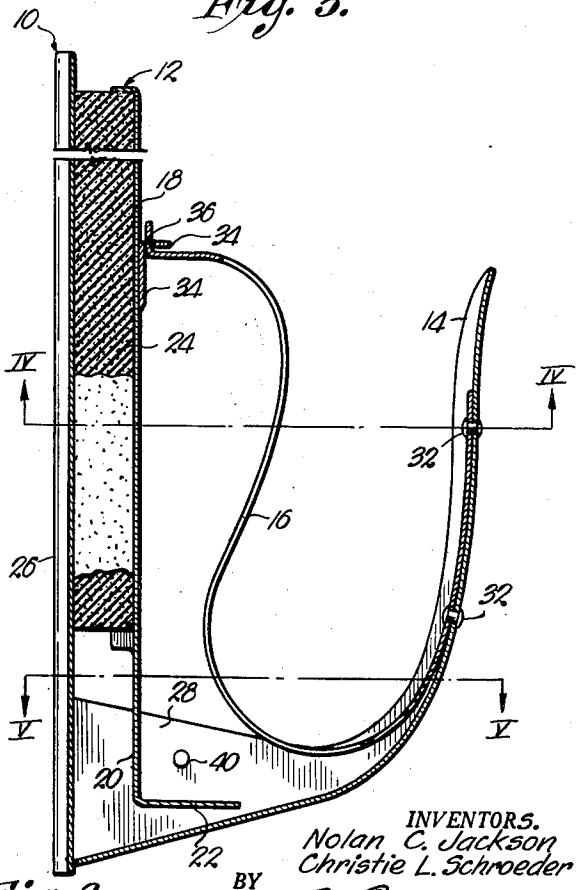



Fig. 3.

INVENTORS.
Nolan C. Jackson
Christie L. Schroeder
BY
Earl Hoover
ATTORNEY.

United States Patent Office 2,872,718 Patented Feb. 10, 1959



2,872,718

# VENT CLAMP FOR USE WHEN CLEANING COATS

Nolan C. Jackson and Christie L. Schroeder, Wichita, Kans., assignors to Wichita Precision Tool Company, Inc., Wichita, Kans., a corporation of Kansas

Application November 25, 1955, Serial No. 549,109

4 Claims. (Cl. 24—252)

This invention relates to improvements in equipment for use in the garment cleaning industry, the primary object being to provide a clamp for facilitating proper finishing of coats and the like of the kind having a slit in the back or tail thereof which must be held closed while the garment is being finished.

It is the most important object of the present invention to provide a relatively simple, lightweight, inexpensive and easily manipulated hand tool in the nature of a clamp that may be quickly and easily place in closing relationship to the aforesaid slit and which, when clamped in place, will hold the flaps of the garment against spreading at the said slit.

Another important object of the instant invention is to provide a clamp of the aforementioned character that is provided with a pliable pad as a part of one of the jaws thereof for closing the slit when the clamp is in an operative position maintaining the flaps against spreading apart.

Other objects include the way in which the clamp is provided with resilient means for yieldably holding the two jaws thereof biased together; the way in which one of the jaws is pivotally mounted on spring means interposed between the one jaw and a handle serving not only to mount the jaw, but hold the same in place; and the way in which stop means is provided to limit the extent of movement of one end of one of the jaws away from the other jaw.

In the drawing:

Figure 1 is a perspective view illustrating a vent clamp for use when cleaning coats made pursuant to the instant invention and showing the same operably mounted on the coat when the same is being finished by a garment finishing machine.

Fig. 2 is an enlarged plan view of the clamp per se.

Fig. 3 is a longitudinal, cross-sectional view taken on line III—III of Fig. 2.

Fig. 4 is a transverse, cross-sectional view taken on line IV—IV of Fig. 3; and

Fig. 5 is a transverse, cross-sectional view taken on line V—V of Fig. 3.

The vent clamp illustrated in the drawing consists essentially of a pair of jaws **10** and **12** adapted for relative movement toward and away from each other, a handle **14** and resilient means in the nature of a substantially S-shaped leaf spring **16** interposed between the handle **14** and the jaw **12** to yieldably hold the latter biased toward the jaw **10**.

The jaw **12** includes a relatively shallow pan-shaped body **18** extending at one end thereof in an L-shaped projection **20** having a relatively short, laterally-extending leg **22**. The body **18** contains an elongated, rectangular pad **24** of relatively soft, pliable material such as sponge rubber.

The jaw **10** comprises an elongated, rectangular strip having the longitudinal edges **26** thereof curled to mount the handle **14** upon the jaw **10** at one end of the latter. Arcuate handle **14** is provided with sides **28** that are in turn provided with lateral flanges **30** around which the edges **26** of jaw **10** are curled and, therefore, clamped in place in the manner illustrated in Fig. 5 of the drawing.



The spring **16** is attached directly to the handle **14** between the latter and the jaw **12** by suitable fasteners such as rivets **32**, and jaw **12** is pivotally connected to one end of the spring **16** through use of a bracket **34** attached rigidly to the outermost face of the body **18**.

The L-shaped bracket **34** is provided with a longitudinal slot **36** and the spring **16** is notched at **38** to lock the same within the slot **36** of bracket **34**. The extent of movement of one end of the jaw **12** away from the jaw **10**, is limited by inwardly-extending stops **40** carried by the sides **28** of handle **14** and which stops **40** also prevent outward dislodgment of the jaw **12** by virtue of leg **22** coming into contact therewith.

The clamp is placed in use in the manner illustrated by Fig. 1 of the drawing, showing a garment in the nature of a coat **42** mounted on an inflatable, permeable bag **44** that is conventionally made a part of many types of garment finishing machines.

The clamp forming the subject matter of the instant invention is shown in Fig. 1 mounted on the garment **42** adjacent a slit **46** within the back or tail of the garment **42**, such slit **46** being commonly provided in many types of men's coats for example, presenting a pair of flaps **48** that should be held against separation at the slit **46** when the bag **44** is inflated with air or steam. Normally, the clamp is extended upwardly a sufficient distance to cause the pad **24** to completely close the slit **46** and by virtue of the fact that the flaps **48** are received between the jaws **10** and **12**, separation is prevented and the steam, as well as air, emanating from the bag **44**, properly permeates the material from which the coat **42** is made.

It is seen that the clamp is easily operated since it may be held in one hand, grasping the handle **14** as well as the spring **16**, and upon imparting a squeezing action which will move the spring **16** toward the handle **14**, the jaw **12** will be swung away from the jaw **10**. While a maximum distance between the jaws **10** and **12** at the outermost ends thereof may be presented for receiving the flaps **48**, the opposite end of the jaws **10** and **12** are prevented from undue separation by stops **40**.

In this respect, therefore, when the spring **16** is squeezed toward the handle **14** and the projection **20** brought into engagement with the stops **40**, the jaw **12** will swing about the stops **40** substantially at the point of joinder of leg **22** with the projection **20**. Stops **40** therefore, serve as fulcrums or pintles about which the jaw **12** swings during manual manipulation to place the clamp on the garment **42** and remove the same after the finishing operation has been completed.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. For use in the finishing of garments, a portable hand clamp comprising a pair of elongated, normally upright jaws; a handle having a lowermost portion rigidly secured to one face of one of said jaws at the lowermost end of the latter and extending laterally therefrom, terminating in an integral upright portion spaced from the other of said jaws; a spring interposed between said upright portion of the handle and said other jaw for yieldably biasing the latter toward said one jaw; means rigidly attaching the spring to said upright portion of the handle; and means remote from said lowermost portion of the handle pivotally attaching said other jaw to the spring for support thereby and vertical swinging movement relative to the spring transversely of the longitudinal axis of said other jaw in a direction to present a V-shaped, upwardly-facing, garment-receiving mouth between the jaws at the uppermost ends of the latter when the spring

is bent toward said upright portion of the handle, said spring having an upwardly-facing loop provided with a pair of legs and a bight, one of the legs having said rigid attachment to the handle, the other of said legs having said pivotal attachment to said other jaw, whereby said other leg and said upright portion of the handle may be hand-squeezed to bend the spring at said bight.

2. The portable hand clamp as set forth in claim 1 wherein, said lowermost portion of the handle is provided with stop means within the path of travel of the lowermost end of said other jaw when the spring is bent for limiting the extent of upward movement of said other jaw and the extent of movement of said lowermost end of the other jaw toward said upright portion of the handle.

3. The portable hand clamp as set forth in claim 2 wherein, said other jaw is provided with a projection depending therefrom and provided with a lateral extension beneath the stop means whereby the latter serves as a fulcrum about which the other jaw swings when the projection engages the stop means at its zone of connection with said extension thereof.



4. The portable hand clamp as set forth in claim 3 wherein, said spring is provided with an upwardly-facing loop provided with a pair of legs and a bight, one of the legs having said rigid attachment to the handle, the other of said legs having said pivotal attachment to said other jaw, whereby said other leg and said upright portion of the handle may be hand-squeezed to bend the spring at said bight.


**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 1,368,868 | Wertman | Feb. 15, 1921 |
| 1,502,215 | Sohst | July 22, 1924 |
| 2,259,791 | Barrow | Oct. 21, 1941 |
| 2,425,194 | Lendle | Aug. 5, 1947 |
| 2,530,470 | Kenly | Nov. 21, 1950 |
| 2,685,391 | Thomas | Aug. 3, 1954 |
| 2,689,996 | Glattis | Sept. 28, 1954 |

FOREIGN PATENTS

| | | |
|---|---|---|
| 474,832 | Great Britain | Nov. 9, 1937 |