Oct. 31, 1961 J. GERMOCK, JR 3,006,676

COMBINATION DOOR CHECK AND STOP

Filed Jan. 21, 1960

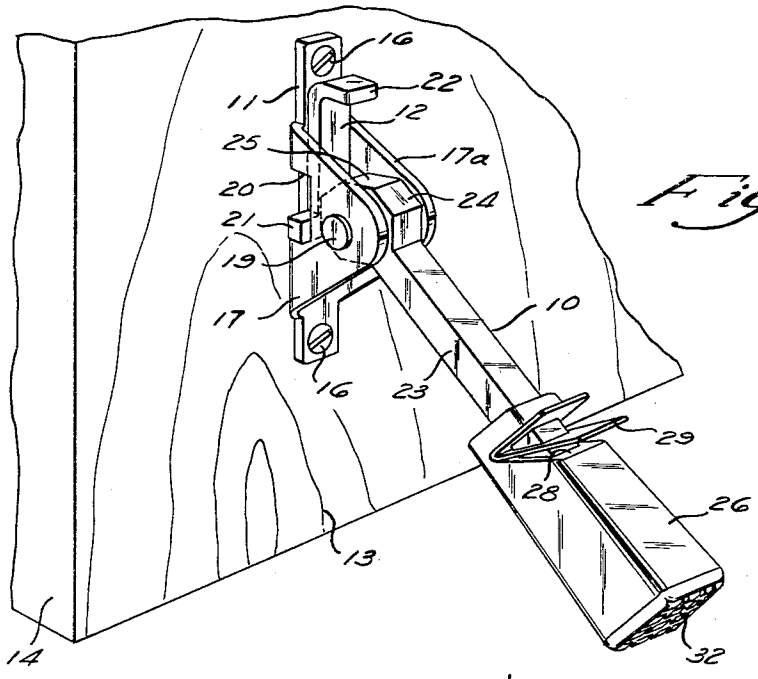


Fig. 1

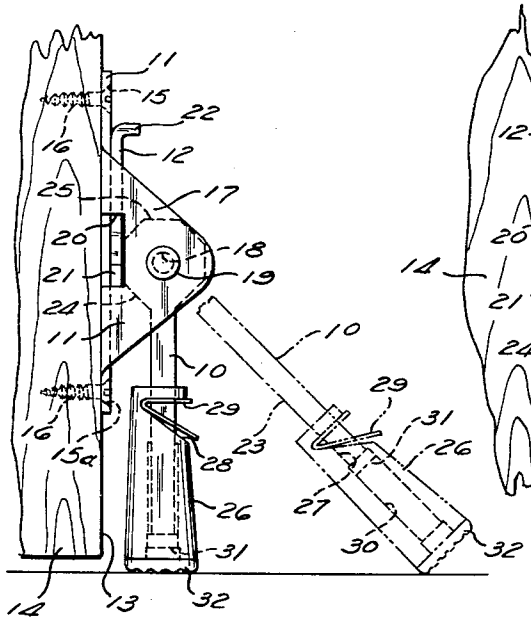


Fig. 2

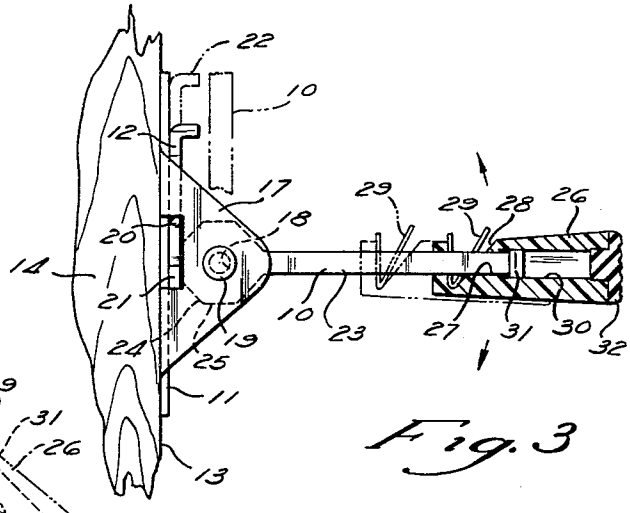


Fig. 3

INVENTOR.
JOHN GERMOCK, JR.

BY
WATTS, EDGERTON, PYLE & FISHER
R. D. Watts
ATTORNEYS

United States Patent Office 3,006,676
Patented Oct. 31, 1961

3,006,676

COMBINATION DOOR CHECK AND STOP

John Germock, Jr., 20270 Lake Shore Blvd.,
Cleveland 23, Ohio

Filed Jan. 21, 1960, Ser. No. 3,813
1 Claim. (Cl. 292—338)

The present invention relates to an improved door stop and check structure of pleasing appearance and adapted to be attached to a door surface and suitable for home and commercial use.

A principal object of the invention is to provide a door stop and door check device having the stop member adjustable to various lengths to facilitate its use where rugs, carpeting or other floor coverings partially cover the floor in the area beneath the swing of the door.

It is another object of the invention to provide a door stop and check device wherein the same adjustable structural member may be positioned as desired to serve as a door stop or as a door check to meet the requirements of the user.

Other objects and advantages of the invention reside in the structure which is inexpensive to manufacture, has a minimum number of parts that are easy to assemble and install upon the door, and is compact and efficient in operation and maintenance.

Other objects and advantages more or less ancillary to the foregoing, and the manner in which all the various objects are realized will appear in the following description, which considered in connection with the accompanying drawings sets forth the preferred embodiment of the invention.

Referring to the drawings:

FIG. 1 is a perspective view of the invention illustrating the manner of attaching the said device to the surface of the door.

FIG. 2 is a side elevational view thereof showing the adjustable arm member positioned to serve as a door check.

FIG. 3 is a side elevational view thereof partly in section showing the adjustable arm member positioned to serve as a door stop.

Referring particularly to the drawings, the improved combination door stop and door check may preferably be made of stamped sheet metal and molded rubber or as an alternative, molded plastic instead of sheet metal.

It consists of three principal parts, i.e. the adjustable metal arm member **10** generally octagonal at the door end and having an adjustable plastic sleeve with a rubber bumper affixed thereto at the other end; a channeled metal plate **11** for attachment to the door and pivotally connected to said arm and a metal key **12** to lock the said arm in the desired position.

Referring now to FIGS. 1 and 2 it will be seen that the channeled plate **11** is attached to the surface of the door **13** within the adjustable range of the arm **10** from the door bottom and near the outer door edge **14** as it is opened. The channeled plate **11** has apertures at **15** and **15***a* so that screws **16** may be used to secure the channeled plate **11** to the door surface **13**.

The sides **17** and **17***a* of said plate **11** form the channel and are generally triangular in shape and apertured at **18** to provide the pivotal connection with said arm **11** by means of a rivet or bolt **19**. The said sides **17** and **17***a* are provided with keyways **20** adjacent the door for slidable engagement with extended portions **21** of the lower end of the key **12**.

The key **12** has its upper end **22** bent outwardly to serve as a handle to lift said key **12** to permit movement and to position said arm **10** in the desired position, i.e. vertical, horizontal or 45° from the vertical.

The said arm **10** as illustrated has a rectangular shank

23 and is substantially uniform in thickness in its vertical plane for slidable engagement between the channel sides **17** and **17***a* of the plate **11**. In its horizontal plane the said shank **23** is enlarged at its end portion extending between said channel sides **17** and **17***a*. Said enlargement **24** is generally octagonal in shape and apertured at the center of the octagon to receive said pivoted rivet **19**. Preferably the size of the enlarged portion **24** should be such so as to provide a slidable engagement with the face of the key **12** when one of its octagonal faces **25** is in vertical plane.

The opposite or outer end of said arm **10** has a rectangular truncated pyramidal-shaped plastic sleeve **26** having an opening **27** therethrough substantially the same size in cross section as that of the shank **23** and is slideably mounted thereon. To provide the adjustment of said sleeve **26** on said shank **23** a V-shaped section **28** is removed from one face of said sleeve near the door or upper end thereof exposing the shank **23**. A spring-clip adjusting member or clutch **29**, similarly V-shaped and having aligned apertures therein to receive said shank **23**, is positioned in said section **28**. To permit the sleeve **26** to be adjusted to the floor level and at the same time retain it upon the shank **23**, the sleeve opening **27** is slightly enlarged in cross section beginning at its outer end and extending in length as far as desirable, but preferably not to reach the position of said spring clip **29** as shown at **30** on FIGS. 2 and 3. The shank **23** has small projections or ears **31** located at its outer end which are bent outwardly after the sleeve **26** is mounted on said shank **23** and which slidably engage said enlarged portion **30** of the sleeve opening **27**.

The said sleeve **26** is provided with a rubber bumper or stop **32** cemented in place in the open end thereof after said sleeve is mounted in place.

It will be seen that when the key **12** is raised the arm **10** may be moved and locked in place by lowering the key **12** in the following positions: vertically up and down, horizontal and 45 degrees up and down from the horizontal position.

When the arm **10** is in a downward vertical position the sleeve **26** may be adjusted to the floor level by releasing the grip of the spring clip **29** upon the shank **23** and thereby permitting the sleeve **26** to slide into the desired position upon the shank **23**. It will be seen that the improved door stop may be used in many different situations such as uneven floors, doors improperly hung, rugs, carpeting or other floor coverings. This is particularly true where the floor coverings do not cover the entire area under the door swing.

It will be seen also that when the arm **10** is in a horizontal position the rubber bumper **32** when the door is opened wide will strike the wall or base board of the building. Otherwise the door edge or the door knob will strike and damage such wall or base board.

Although the foregoing description is necessarily of a detailed character, in order that the invention may be completely set forth, it is understood that the specific terminology is not intended to be restrictive or confining, and that various arrangements of parts and modifications of detail may be resorted to without departing from the scope or spirit of the invention as herein claimed.

What is claimed is:

A combined door stop and check comprising a plate adapted to be attached to a door, the sides thereof forming a vertical channel on the front side of said plate, a rectangular operating arm having one enlarged octagonal-shaped end in its vertical plane and disposed within said channel and pivotally connected thereto for movement in a vertical plane and a plastic sleeve slidably mounted on the other end of said arm, a V-shaped spring clip having rectangular apertures therein through which said arm

extends mounted in a similar V-shaped recess in said sleeve and affixed to said arm for adjusting and holding said sleeve in fixed position on said arm, a rubber bumper mounted on the remote end of said sleeve and a rectangular key slidably mounted within said channel adapted to engage one of the octagonal surfaces of said arm to lock said arm in a fixed operating or non-operating position.

References Cited in the file of this patent

UNITED STATES PATENTS

318,323	Teetzel	May 19, 1885
755,058	Shaw	Mar. 22, 1904
847,345	Leach	Mar. 19, 1907
860,816	Marcum	July 23, 1907
1,631,980	Piccirilli	June 14, 1927