United States Patent

[11] 3,583,122

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[54] **REPAIR PATCH FOR WALLBOARDS**
10 Claims, 7 Drawing Figs.

[52] **U.S. Cl.** **52/514,** 52/127
[51] **Int. Cl.** **E04g 23/02**
[50] **Field of Search** 52/127, 514

[56] **References Cited**

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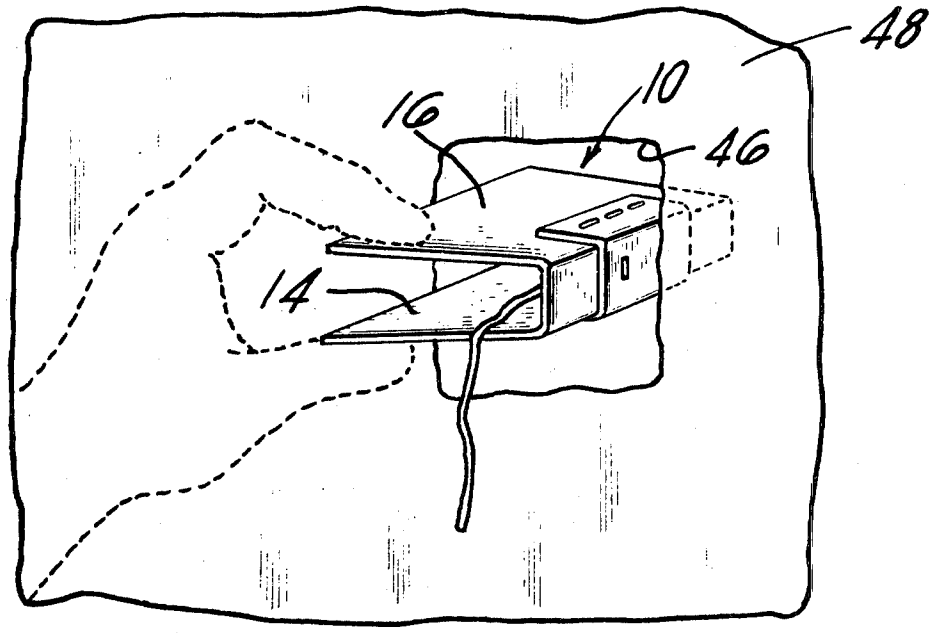
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Assistant Examiner—Leslie A. Braun
Attorney—Olsen and Stephenson

ABSTRACT: Apparatus in the form of a repair kit for closing a hole in a wallboard on which an overlay of plaster or similar material is to be applied.



PATENTED JUN 8 1971

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SHEET 1 OF 2

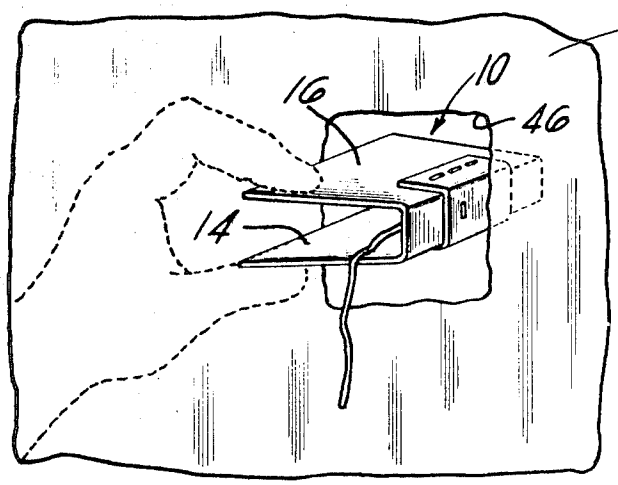


FIG. 2

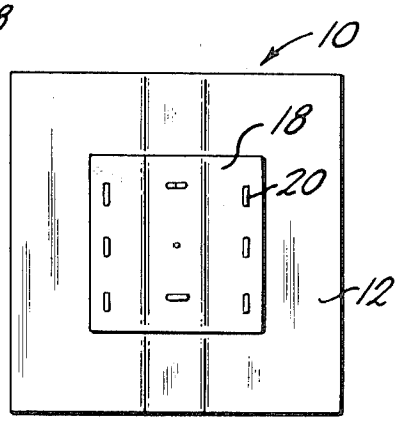


FIG. 1

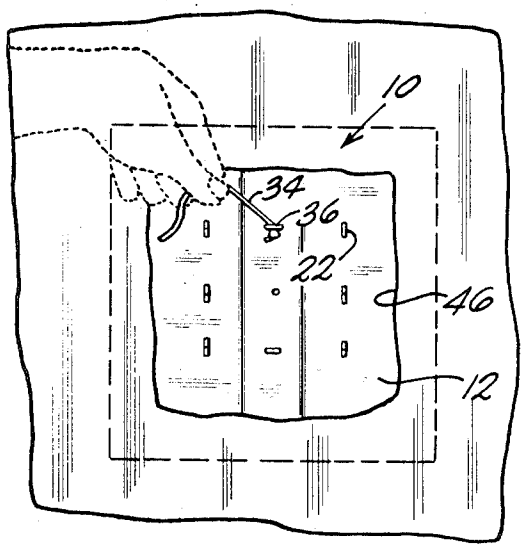


FIG. 3

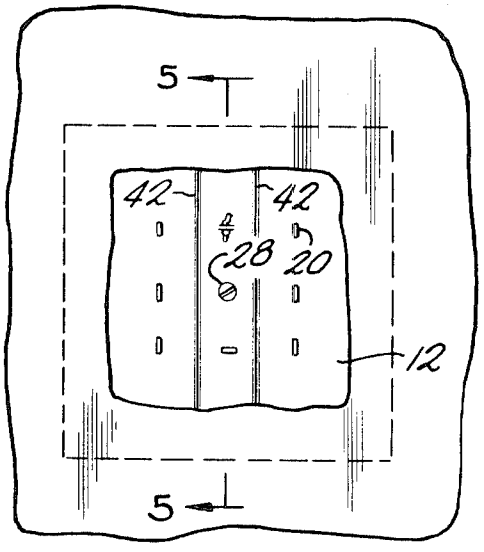
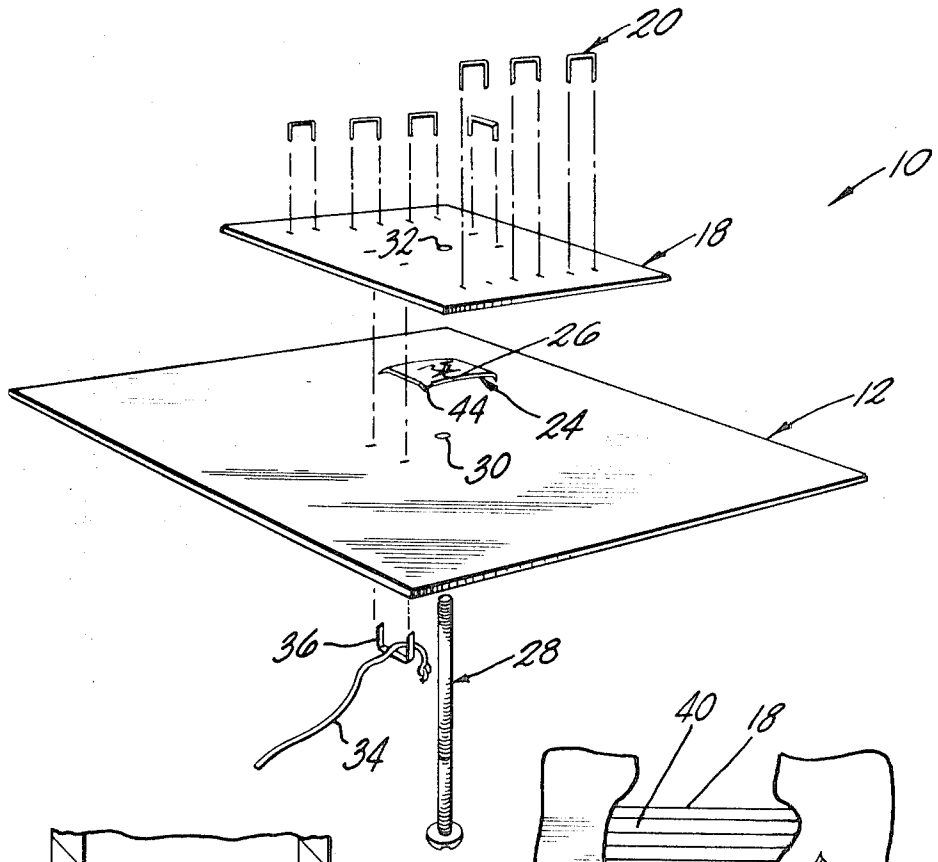


FIG. 4

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FIG. 7



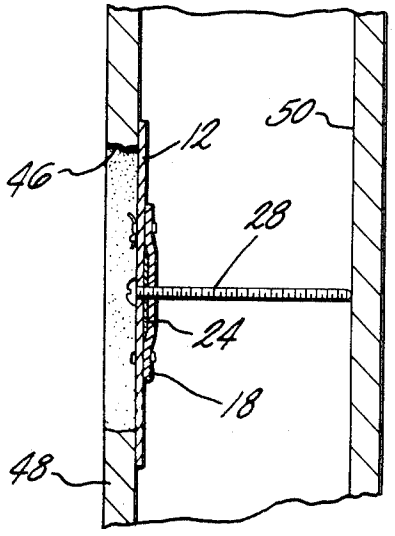


FIG. 5

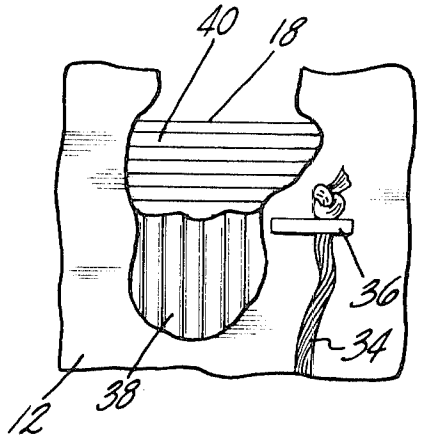


FIG. 6

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REPAIR PATCH FOR WALLBOARDS

BACKGROUND OF THE INVENTION

The present invention relates to a repair patch for closing a hole in a wallboard on which an overlay of plaster or similar material is to be applied.

One of the problems which constantly arises in the building trade is that of repairing holes in wallboard before applying an overlay of plaster or similar material. The conventional practice is to stuff paper, wire mesh, or similar materials through the hole to serve as a backing or support for the plaster when the latter is applied to the wallboard. This practice is undesirable, because it results in weak spots existing in the finished wall, and because it is a time-consuming operation to prepare such a backing or support, irrespective of its adequacy.

SUMMARY OF THE INVENTION

The present invention provides apparatus for overcoming the shortcomings of the prior art whereby the worker can readily apply a patch to the opening in the wallboard, and such patch will be urged against the concealed surface of the wallboard from an abutment therebehind so as to provide a rigid backing member on which the overlay of plaster can be quickly and easily applied. The apparatus is such that it will continue to provide a sturdy backing for the plaster after the latter has dried.

In a preferred form of the present invention, a repair patch is provided comprising a first panel having a front and rear surface, said panel being adapted to be folded together transversely across the front surface for insertion through a hole in a wallboard, and thereafter to be unfolded to fit flush against the concealed surface of the wallboard to close the hole, and a second panel is secured to the rear surface of the first panel. A resilient plate in the form of a Tinnerman Speed Nut is secured between the panels and has a threaded aperture. The panels have apertures in registry with the threaded aperture, and a thrust member in the form of a screw is threadedly connected through the threaded aperture, and is adapted to be turned to advance the screw against an abutment in the rear of the wallboard for securing the first panel in a flush position against the concealed surface of the wallboard. A string is attached to the front surface of the first panel for holding the latter in place when the screw is being turned.

The panels are preferably formed from corrugated cardboard, with the corrugations of the first panel being parallel to the transverse fold and the corrugations of the second panel being perpendicular thereto. The panels can be secured together by staples, and the string on the front surface of the one panel can also be secured thereto by a staple. By virtue of the arrangement, the panels can be folded and inserted through the hole in the wallboard, after which the panels can be returned to their generally flat plane and can be pulled by the string snugly against the concealed surface of the wallboard in a position to close the hole. Thereafter, the screw can be advanced until it engages an abutment to the rear of the wallboard, and it can be turned a limited amount further so that a thrust is applied against the panel assembly urging it snugly against the concealed wall of the wallboard. The plastering operation can then be performed and a rigid backing will be provided for the plaster that is to be applied at the hole.

Thus, it is an object of the present invention to provide improved apparatus for closing the hole in a wallboard.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings, forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a rear elevational view of a repair patch embodying one form of the present invention;

FIG. 2 is a perspective view showing a fragment of a wallboard having a hole therein, and showing the repair patch in an initial stage of installation;

FIG. 3 is a similar view, but showing the repair patch in a later stage of installation;

FIG. 4 is a similar view, but showing the repair patch after it has been fully installed;

FIG. 5 is an enlarged section taken on the line 5–5 of FIG. 4;

FIG. 6 is an enlarged fragmentary detail of a portion of the repair patch with portions broken away to show the interior construction of the panels; and

FIG. 7 is an exploded view of the repair patch.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Before explaining the present invention in detail, it is to e understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Referring now to the drawings, the invention will be described in greater detail. The repair patch **10** includes a first panel **12** having a front surface **14** and a rear surface **16**. Mounted on the rear surface **16** is a second panel **18**, which in the disclosed embodiment is secured in place by a plurality of staples **20**. The staples are introduced through the panels **12** and **18** from the rear so that the ends of the staples are folded over on the front surface of the panel **12**, and can be seen at **22**. A resilient plate **24** is mounted between the first panel **12** and the second panel **18** and has a central aperture arranged to receive a threaded member **28**. For this purpose, a Tinnerman Speed Nut may be used.

The first panel **10** has an aperture **30** and the second panel has an aperture **32** which are in registry with the threaded aperture **26** of the plate **24**. Thus, the screw of threaded member **28** can be inserted into the series of registered openings **26**, **30** and **32** and can be screwed through the assembly so as to function as a thrust member, as will presently be described. Also forming a part of the repair patch **10** is the string **34** which can be suitably attached to the front surface of the panel **12** as by a staple **36**.

In the illustrated embodiment of the invention, the panels **12** and **18** are formed of corrugated paperboard, the corrugations **38** in the panel **12** extending transversely in one direction, and the corrugations **40** in the other panel **18** running perpendicular thereto. Normally, the first panel **12** will have creases **42** in its front surface to facilitate folding the panel to the position illustrated in FIG. **2**, and such creases **42** will be parallel to the corrugations **38**. By virtue of this arrangement of the panels **12** and **18**, the panel **18** will act to urge the folded panel assembly or means back to its normal position subsequent to folding such panel means to the position shown in FIG. **2**.

In the manufacture of the repair patch **10**, the panels **12** and **18** can be readily stapled together with the plate **24** inserted therebetween. The plate **24** normally will have tangs **44** at its corners to assure that the plate will remain in its fixed position between the panels when they are fastened together by the staples **20**. Thereafter, the string **34** can be stapled to the front surface by means of the staple **36**.

When the repair patch **10** is to be used for closing a hole **46** in a wallboard **48**, the repair patch **10** will initially be folded to the position shown in FIG. **2** so that it can be inserted through the hole **46**. The repair patch **10** can then be held in the position shown in FIG. **3** with the front surface of the panel **12** flush with the concealed surface of the wallboard **48** and completely closing the hole **46**. The screw or thrust member **28** can then be screwed through the threaded aperture **26** and the apertures **30** and **32** to the position shown in FIG. **5** wherein the end of the screw **28** engages the abutment **50**,

thereby imparting a thrust against the front panel 12 urging it against the concealed surface of the wallboard 48. After the thrust member 28 has been properly positioned, the string 34 can be severed as shown in FIG. 5 so as not to interfere with the plastering operation. The wallboard 48 is now in condition to have an overlay of plaster or similar material applied to its front surface, and simultaneously the hole 48 can be filled with plaster so that a finished surface is provided.

From the foregoing it will be observed that a repair patch 10 has been provided for closing a hole 46 on the wallboard 48 on which an overlay of plaster or similar materials can be applied. The repair patch 10 includes the panel means (panels 12 and 18, plate 24 and staple 20), which has a greater area than the hole 46. A first member 28 is connected to the panel means and is extensible in a direction rearwardly of the panel means for engagement with an abutment 50 to exert a forward thrust against the panel means for holding the latter against the concealed surface of the wallboard 48.

Preferably the panel means comprises the two panels 12 and 18 which are formed of corrugated cardboard and support a resilient plate, preferably a Tinnerman Speed Nut, therebetween. The thrust member can be any form of conventional screw of sufficient length so that it will engage an abutment behind the wallboard 48.

Normally the staples 20 will be applied so that their ends, shown at 22, are in the front surface of the panel 12 to improve the adherence of the applied plaster to the repair patch.

I claim:

1. A repair patch for closing a hole in a wallboard on which an overlay of plaster or similar material is to be applied comprising a first panel having a front and a rear surface, said first panel being adapted to be folded together transversely across the front surface for insertion through said hole and thereafter unfolded to fit flush against the concealed surface of the wallboard to close said hole, a second panel secured to the rear surface of said first panel so as to urge said first panel to its unfolded position, a plate secured between said panels having a threaded aperture, said panels having apertures in registry with said threaded aperture, a screw of a selected length threadedly connected to said threaded aperture and adapted to be turned to advance the screw against an abutment to the rear of said wallboard for securing said first panel in said flush position, and a string attached to the front surface of said first panel for holding the latter in place when said screw is being turned, the stem of said screw being threaded its full length so that the head of the screw can be located against the first panel and the applied overlay material can then conceal the screwhead when the repair patch is mounted in place.

2. A repair patch as is defined in claim 1, wherein said panels are corrugated cardboard.

3. A repair pitch as is defined in claim 2, wherein the corrugations of said first panel are parallel to the transverse fold.

4. A repair patch as is defined in claim 3, wherein the corrugations of said second panel are perpendicular to the transverse fold.

5. A repair patch for closing a hole in a wallboard on which an overlay of plaster or similar material is to be applied comprising a first corrugated cardboard panel having a front and a rear surface, said first panel being adapted to be folded together transversely across the front surface for insertion through said hole and thereafter unfolded to fit flush against the concealed surface of the wallboard to close said hole, said first panel having two parallel creases in its front surface, said creases being parallel to the corrugations of said first panel to facilitate making said transverse fold, a second corrugated cardboard panel secured to the rear surface of said first panel, the corrugations of said second panel being perpendicular to the transverse fold, a plate secured between said panels having a threaded aperture, said panels having apertures in registry with said threaded aperture, a screw threadedly connected to said threaded aperture and adapted to be turned to advance the screw against an abutment to the rear of said wallboard for securing said first panel in said flush position, and a string attached to the front surface of said first panel for holding the latter in place when said screw is being turned.

6. A repair patch as is defined in claim 5, wherein said panels are stapled together with the ends of the staples being located on the front surface of the first panel.

7. A repair patch as is defined in claim 6, wherein said string is attached to said front panel by a staple.

8. A repair patch as is defined in claim 5, wherein said creases are on opposite sides of the aperture in the first panel.

9. A repair patch for closing hole in a wallboard on which an overlay of plaster or similar material is to be applied comprising a panel means having a greater area than said hole and formed to be constricted for passage through said hold and to be returned to its original shape for fitting against the concealed surface of the wallboard to close said hole, and a thrust member connected to said panel means and extensible in a direction rearwardly of said panel means for engagement with an abutment located a preestablished distance rearwardly of the wallboard to exert a forward thrust against said panel means for holding the latter against the concealed surface of said wallboard, said panel means including two panels and said plate having a apertures in registry, and said thrust member being a screw which extends through said registered apertures and is threadedly connected to said resilient plate, the stem of the screw having a length approximately equal to said preestablished distance and being threaded so that the head of the screw can be seated against the panel means when the repair patch is installed in place, thereby allowing the head to be concealed in the overlay material.

10. A repair patch as is defined in claim 9, wherein said two panels are corrugated cardboard in which the corrugations of one of said panels is angularly disposed relative to the corrugations of the other panel.

PO-1050
(5/69)

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,583,122 Dated June 8, 1971

Inventor(s) Norman P. Biegajski

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 2, line 39, "of" , second occurrenee, should read -- or --.
Column 4, line 30, Claim 9, "a" should follow "closing."
Column 4, line 41, Claim 9, following "two panels" should be - - secured together and supporting therebetween a resilient plate, said panels - - .

Signed and sealed this 15th day of February 1972.

(SEAL)
Attest:

EDWARD M.FLETCHER, JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents