March 23, 1965 L. K. LOCKWOOD 3,174,256

SIDING CONSTRUCTION

Filed March 14, 1960 2 Sheets-Sheet 1

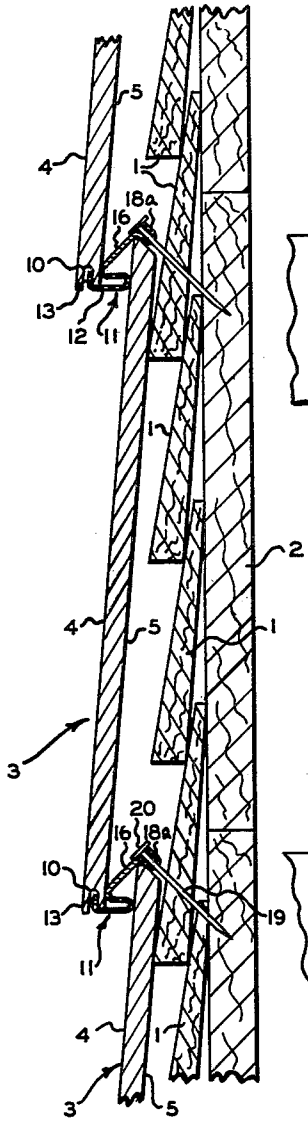


FIG. 1

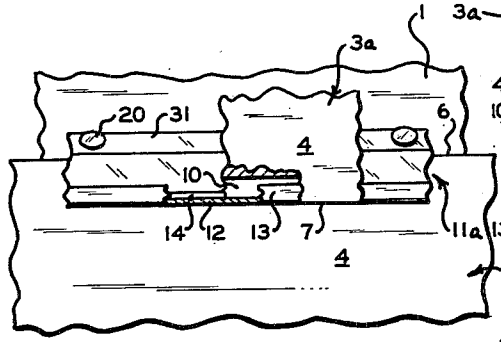


FIG. 4

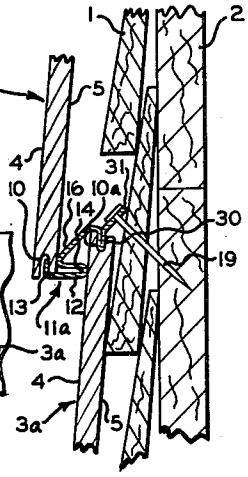


FIG. 3

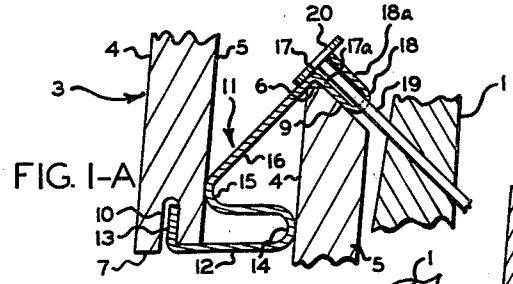


FIG. 1-A

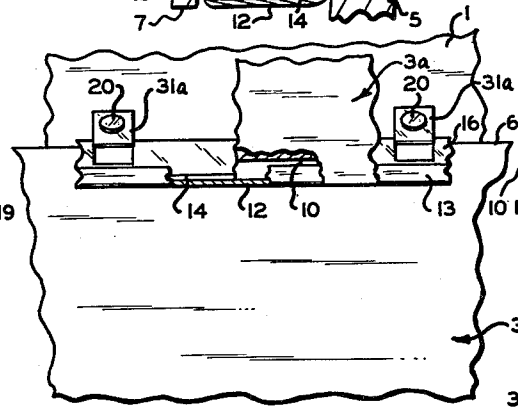


FIG. 6

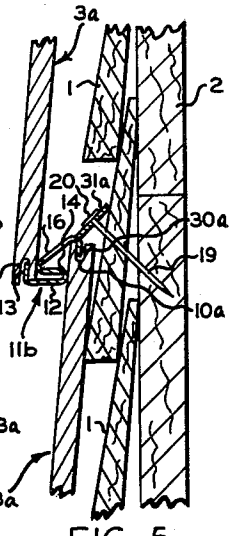


FIG. 5

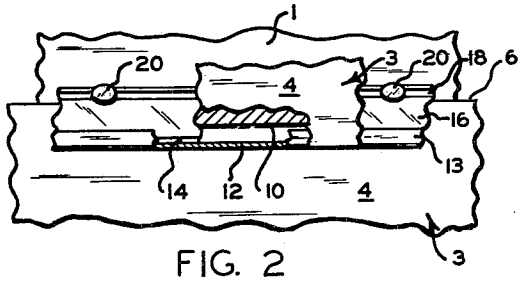


FIG. 2

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SIDING CONSTRUCTION

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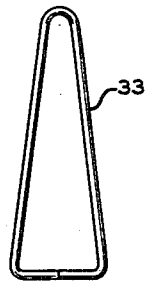


FIG. 9

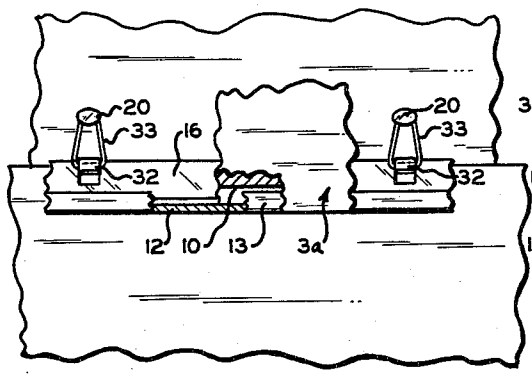


FIG. 8

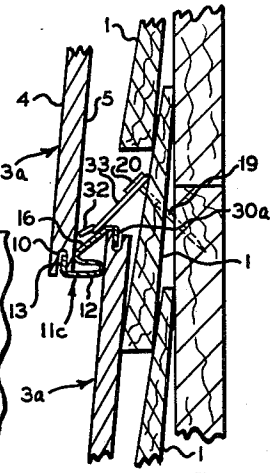


FIG. 7

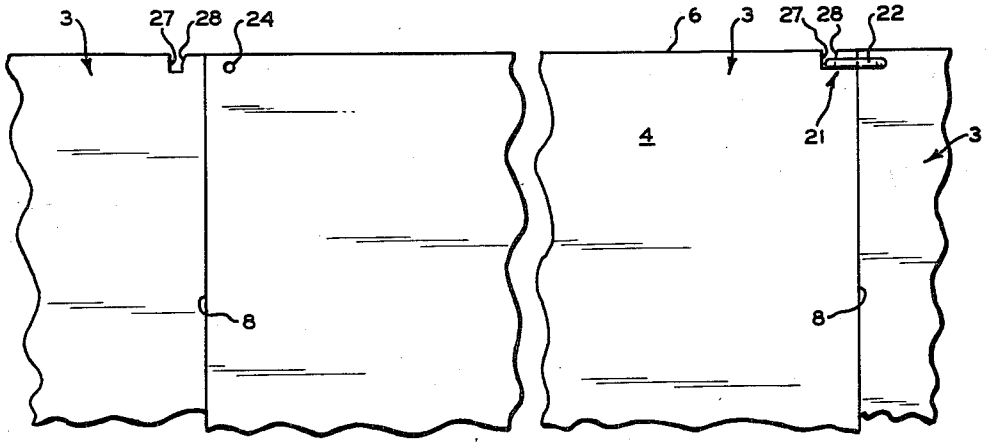


FIG. 10

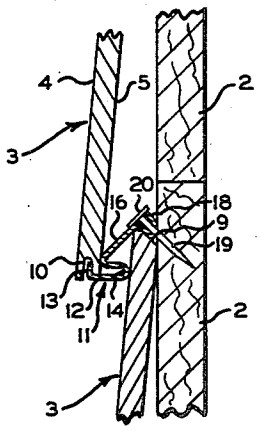


FIG. 13

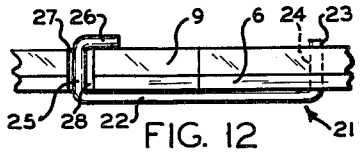


FIG. 12

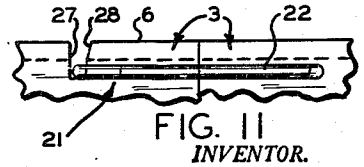


FIG. 11

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3,174,256

SIDING CONSTRUCTION

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Filed Mar. 14, 1960, Ser. No. 14,773
8 Claims. (Cl. 50—214)

This invention relates to siding construction and more particularly to the construction of siding strips, their mounting members, and their fastening devices, all of which cooperate with one another to enable the strips to be applied quickly, attractively and economically, without shimming, to either old or new building structures.

Siding material of the kind with which the invention primarily is concerned comprises lengths of wood, wood-like or wood substitute material of known kinds which are adapted to simulate the appearance of conventional wood siding.

An object of this invention is to provide siding construction composed of lengths of siding material capable of being applied in overlapping relation to the sides of a building or like structure and in such manner that the lengths of material are capable of movement relative to their mounting means so as to be self-compensating for expansion and contraction forces.

Another object of the invention is to provide siding construction wherein the ability of the lengths of material to shift relatively to their mounting means is accomplished without the necessity of slotting, notching, or otherwise providing an open area in the body of the individual lengths of material.

A further object of the invention is to provide siding construction of the kind referred to wherein the lengths of material and their mounting means cooperate to align both the top and bottom edges of each length of siding.

Still another object of the invention is to provide mounting means for lengths of siding material which are capable of being firmly mounted on a supporting structure without complications due to uneven spacing of studding or the like.

A further object of the invention is to provide a mounting device for individual lengths of siding material and which promotes mounting of the devices on the base structure in a manner which increases its holding qualities.

Still another object of the invention is to provide siding construction of the kind referred to wherein the individual lengths of siding are so constructed as to be capable of being turned end-for-end and used either way equally well.

Other objects and advantages of the invention will be pointed out specifically or will become apparent from the following description when it is considered in conjunction with the appended claims and the accompanying drawings, in which:

FIGURE 1 is a fragmentary, sectional view of a portion of a typical wall of a house or the like and illustrating one embodiment of the siding and one embodiment of its mounting means, the siding material of the invention being applied over old siding;

FIGURE 1–A is a fragmentary, enlarged view of a portion of the structure shown in FIGURE 1;

FIGURE 2 is a fragmentary, partly sectional front elevation of the embodiment shown in FIGURE 1;

FIGURE 3 is a view similar to FIGURE 1, but illustrating another embodiment of the siding and another embodiment of the mounting means;

FIGURE 4 is a view similar to FIGURE 2, but illustrating the embodiment disclosed in FIGURE 3;

FIGURE 5 is a view similar to FIGURE 3 wherein the siding material is the same as that shown in FIGURE 3, but where the mounting device is different;

FIGURE 6 is a view similar to FIGURE 4, but showing the embodiment illustrated in FIGURE 5;

FIGURE 7 is a view similar to FIGURE 5, but illustrating still a further modified form of the mounting means;

FIGURE 8 is a front elevational view, partly in section, of the embodiment shown in FIGURE 7;

FIGURE 9 is an enlarged elevation of a portion of the mounting device shown in FIGURES 7 and 8;

FIGURE 10 is a fragmentary, front elevational view illustrating a number of lengths of siding material arranged in end-to-end relation and illustrating one form of fastening device for maintaining the adjacent ends of a pair of lengths of siding in abutting relation;

FIGURE 11 is an enlarged, fragmentary front elevational view of a portion of the structure shown in FIGURE 10;

FIGURE 12 is a top plan view of the structure shown in FIGURE 11; and

FIGURE 13 is a view similar to FIGURE 1, but illustrating the applicability of the siding material to a flat wall, that is, a wall having no old siding thereon.

In all of the embodiments of the invention shown in FIGURES 1–12, the siding material is shown as being applied over old shingles or clapboards **1** which at some time in the past would have been secured to sheathing **2** or the like by nails (not shown) in the conventional manner of applying wood materials to the outside walls of a building. Siding constructed and mounted in accordance with the invention, however, is capable of being applied directly to the sheathing itself in the case of newly constructed buildings and this characteristic of the invention is illustrated in FIGURE 13. In either instance, shimming is not required.

The siding construction formed in accordance with the embodiment of the invention disclosed in FIGURES 1 and 2 comprises a plurality of lengths or strips **3** of siding material of the kind referred to above, each strip being alike and each having a front surface **4** and a rear surface **5** bounded by top and bottom edges **6** and **7**, respectively, and end edges **8** (see FIGURE 10). Preferably, the front face **4** of each siding strip **3** is painted prior to installation, but the rear face **5** need not be painted. One important characteristic of the strips **3** is that their upper and lower edges are contoured so as to present surfaces which are non-planar. In FIGURES 1, 2 and 13, the upper edge **6** of each siding strip **3** preferably is beveled as at **9** so as to slope downwardly towards the rear face **5**, and the lower edge of each strip **3** preferably is grooved between its front and rear surfaces as at **10**.

Means for mounting the siding strips **3** comprises a number of mounting devices or channels **11**, each of which is alike, and each of which comprises a formed body having a supporting section **12** terminating at its forward end in an upstanding lug or flange **13** that is adapted to enter the groove **10** at the lower edge of an adjacent, upper siding strip **3**. The rearward edge of the supporting section **12** is reversely bent as at **14** so as to bear against the upper edge of an adjacent, lower siding strip **3**. From the bend **14** the body of the mounting channel extends substantially parallel to the supporting section **12** and is bent as at **15** short of the flange **13** to form a bearing surface that bears against the lower edge of the upper adjacent siding strip **3** and spaces it from the lower strip. The section of the mounting device between the bends **14** and **15** comprises a spacer section. From the bend **15** the channel body has an intermediate section **16** that extends upwardly and rearwardly toward the plane of the reversely bent edge of the section **12** to a point adjacent to the upper end of the lower adjacent panel **3**, at which point the section or portion **16** is bent sub-

stantially at right angles as at **17** so as to form a mounting portion **17***a* that conforms substantially to the slope of and engages the surface **9**. From the section **17***a* the mounting portion is reversely bent as at **18** to form an attaching section **18***a*. The sections **18***a* and **17***a* form a substantially U-shaped channel lying wholly above the upper edge of the siding strip.

When a mounting member **11** is applied to the upper edge of a previously installed siding strip **3**, the U-shaped attaching channel presents an upwardly inclined receiver for securing nails **19**. A carpenter applying the siding will have a natural tendency to hold the nail **19** in such position that its point engages the bottom of the channel formed by portion **18**. As a result, when the nail is driven into the base structure **1**, it will enter at an angle to the horizontal until its head **20** engages the two outer edges of the channel. The nonhorizontal positioning of the nail **19** causes it to resist being extracted from the base structure more than it would if it were located horizontally and, inasmuch as the direction of nailing is substantially normal to the intermediate portion **16**, the nail head **20** will bear against the upper edge of the section **16** and force the latter towards the strip **3**, thereby avoiding any tendency of the mounting channel **11** to rock about the upper edge of the siding strip **3** on which it is mounted.

It is not necessary that the base of the channel be provided with openings to accommodate the nails **19**, inasmuch as the mounting members may be formed of aluminum, for example, which easily may be pierced by the nails. If desired, the bottoms of the channel portions may be perforated at intervals along their length.

As will be apparent from FIGURE 1, the legs defining the groove **10** are of unequal length. The outer leg is somewhat longer than the inner leg so that it may overlie the supporting section **12** of the mounting member and shield the latter from view when the siding strips are in place on a wall.

The installation of the siding strips **3** proceeds in tiers from near the bottom of a wall towards the top. It often is necessary to place two or more siding strips **3** in end-to-end relation to span the width of a wall and, in order to maintain the abutting edges of a pair of strips **3** as close together as is possible, fastening means is provided. The means is illustrated in FIGURES 10–12 and includes a fastening member **21** having a central portion or web **22** which is adapted to lie against the outer faces of a pair of abutting siding strips **3**. At one end of the web **22** is a substantially right-angular leg **23** that is adapted to project through an opening **24** formed adjacent to one end and near the upper edge of a siding strip **3**. At the other end of the web **22** is a generally right-angular leg portion **25** which parallels the leg **23** but terminates in a right-angular extension **26** which parallels the web **22**. The length of the leg **25** should be such that the distance between the extension **26** and the web **22** corresponds substantially to the thickness of the strip **3**. One end of each strip **3** is provided with a notch **27** that is adapted to receive the leg portion **25**. The level of the base of the notch **27** should correspond substantially to the level of the opening **24** and the distance between the opening **24** and the notch **27** should correspond substantially to the length of the web **22** of the anchor device, but it is preferable that the length of the web **22** be such that the leg portions **23** and **25** do not lie loosely in their respective openings. If the distance between the legs **23** and **25** is only slightly less than the distance between the openings **24** and **27**, the fastening device **21** will be placed under tension when it is installed. This is a desirable characteristic since the member **21** will then maintain the abutting edges of the siding strips tightly against one another and aid in maintainng the abutting strips aligned. In order to facilitate assembly of the fastening members **21** with the siding strips, the upper edge of each notch **27** may be sloped or cammed as

at **28** so as to enable the leg portion **25** to enter the upper edge of notch **27** easily. Then upon striking the leg **25** with a hammer or the like the leg **25** may be seated at the base of the notch **27** where it will be retained by the tension imposed on the fastening device.

The relative locations of the openings **24** and **27** are such that, when the fastening devices are in place, they will lie in the space between the portions **14** and **16** of the mounting members **11**. Thus, the fastening devices **21** will be obsecured from view and will not interfere with the application of the mounting members or with the lateral movement of the strips during expansion or contraction.

A particular advantage of the construction described thus far is that none of the siding strips **3** must be notched to accommodate either the mounting members **11** or the securing nails **19**. As a consequence, the nails **19** may be driven into the base structure, that is, the members **1** and **2** or the studding (not shown) at any convenient point. Moreover expansion and contraction of the siding strips **3** in a lateral direction exert no force on the securing nails **19** and consequently the means by which the siding strips **3** are held in place are not weakened by natural expansion and contraction of the siding.

Another important advantage of the construction described thus far is that the flange **13** of each mounting member, by engaging in the groove **10** at the bottom of each siding strip **3**, is capable of maintaining the lower edges of abutting strips in alignment. The engagement of the attaching channel formed by the sections **17**, **18** and **18***a* with the upper edges of the strips functions to maintain the upper edges of abutting strips in alignment. Consequently, it is possible to avoid waviness in siding constructed in accordance with the invention.

In the embodiment of the invention disclosed in FIGURES 3 and 4 each of the siding lengths **3***a* has a groove **10** in its lower edge similar in all respects to the groove **10** previously described and, in addition, the upper edge of each strip of siding **3***a* is similarly grooved as at **10***a*. As a result, either long edge of the strips of siding may be considered the top or the bottom. This is an important characteristic of the invention since it enables a strip of siding to be cut obliquely to fit against a gable, for example, and permits the piece cut off the strip of siding to be turned end-for-end so that the obliquely cut edge also may be fitted against the gable, thereby avoiding the necessity of cutting two pieces of siding.

Associated with the siding strips **3***a* shown in FIGURES 3 and 4 is a mounting member **11***a* having parts **12**, **13**, **14**, and **15** similar to those described earlier. From the upper end of the intermediate portion **16**, however, the body of the member **11***a* is bent to conform substantially to the grooved contour of the siding strip **3***a* thereby providing a mounting portion having a short part that seats upon the upper edge of the siding and a terminal part forming a depending tongue portion **30** that is received in the groove **10***a* of the siding strip **3***a*. The tongue **30** terminates in an upwardly inclined attaching flange **31** through which securing nails **19** may be driven in a manner and at the angle previously described.

Another important characteristic of the construction shown in FIGURES 3 and 4 is that each mounting member **11***a* serves not only to mount an adjacent upper siding strip, but also serves to align the upper and lower edges of adjacent boards. That is, the flange **13** at the end of the supporting leg **12** will maintain a pair of abutting siding strips **3***a* in alignment and the tongue **30** will maintain the upper edges of a pair of siding strips **3***a* in alignment.

In the embodiment of the invention shown in FIGURES 5 and 6, the siding strips are identical to the strips **3***a* earlier described. The mounting members **11***b*, however, differ from the mounting members **11***a* in that the attaching flange **31***a* is struck up from the intermediate portion **16** and the tongue **30***a* of the mounting portion

which is received in the groove **10***a* of the siding strip is of single thickness only. In all other respects the structure shown in FIGURES 5 and 6 corresponds to the structure shown in FIGURES 3 and 4.

In the embodiment disclosed in FIGURES 7, 8, and 9, the siding strips again are like the other siding strips **3***a* previously disclosed and the mounting member **11***c* is quite similar to the mounting member **11***b* with the exception that the attaching means of the members **11***c* comprise tabs **32** struck up from the intermediate portion **16** and to which are connected loops or hangers **33** formed of wire and through which the securing nails **19** extend. The upper ends of the hangers **33** should be of such size as to prevent the heads **20** of the nails from passing therethrough. In all other respects the members **11***c* are like the members **11***b*.

In each of the embodiments disclosed in FIGURES 3–9, the fastening means **21** described earlier in connection with the embodiment shown in FIGURES 1, 2, 11, and 12 also may be used.

As is indicated in FIGURE 13, the principles of the invention are applicable not only to the installation of siding over old construction but also to new or flat wall structures. While only the embodiment of the invention shown in FIGURES 1 and 2 is detailed in FIGURE 13, it should be clear that any of the other embodiments may as well be used.

This application is a continuation-in-part of co-pending application Serial No. 567,527, filed February 24, 1956, now Patent No. 3,060,641.

This disclosed embodiments are representative of presently preferred forms of the invention but are intended to be illustrative rather than definitive thereof. The invention is defined in the claims.

I claim:

1. An elongated mounting device for a length of siding, said device comprising a substantially planar supporting section having forward and rearward ends, said supporting section terminating at its forward end in an upstanding lug and being reversely turned at its rearward end to form a spacer section overlying and spaced from said supporting section but terminating at its forward end short of the forward end of the latter, an intermediate portion joined to the forward end of said spacer section and overlying said spacer section and extending rearwardly at an inclination to the latter, a mounting portion joined to said intermediate portion at its rearward end, said mounting portion having at least a part thereof extending in angular relationship to said intermediate portion toward the plane of said supporting section and beyond the rearward end of the latter but terminating short of the plane of said supporting section, and an attaching member joined to one of said portions and extending therefrom in a direction away from the plane of said supporting section.

2. The device set forth in claim 1 wherein said attaching member is joined to said mounting portion and forms with the latter a generally U-shaped channel.

3. The device set forth in claim 1 wherein said attaching member comprises a flange reversely bent from the rearward end of said mounting portion.

4. The device set forth in claim 1 wherein said attaching member comprises a tab struck out from said intermediate portion.

5. The device set forth in claim 1 wherein said attaching member comprises a tab struck out from said intermediate portion, and includes a loop member secured to said tab and extending therefrom away from the plane of said supporting section.

6. The device set forth in claim 1 wherein said spacer section is substantially parallel to said supporting section.

7. An elongated mounting device for a length of siding, said device comprising a substantially planar supporting section having forward and rearward ends, said supporting section terminating at its forward end in an upstanding lug, an intermediate portion joined to the rearward end of said supporting section and extending in a direction away from the plane of said supporting section, a mounting portion joined at one of its ends to said intermediate portion and extending at an incline toward the plane of said supporting section and rearwardly of the rearward end of the latter but terminating short of the plane of said supporting section, and an attaching section joined to the terminal end of said mounting section and overlying the latter, said attaching section terminating substantially flush with the juncture of said mounting portion and said intermediate portion to form with said mounting portion a substantially U-shaped channel that opens forwardly.

8. Siding construction comprising a number of similar strips of siding material each having front and rear faces and top, bottom, and end edges, said strips being arranged so that an end edge of one lies adjacent an end edge of another; an elongated mounting member of such length as to bridge the adjacent ends of said strips and comprising a body having a first section seated on the top edge of each of said strips of material and extending downwardly and rearwardly below the top edge of said front face, a second section connected to said first section and overlying part of said front face of each of said strips of material and together with said first section embracing the top edge of each of said strips of material, and a third section connected to said second section and adapted to support a strip of siding material other than said number of strips; attaching means connected to said body and adapted to receive anchor means for anchoring said body on a wall or the like, said attaching means extending above said first section of said body for enabling said anchor means to be located above the top edge of said number of strips of material, whereby said number of strips are capable of movement relative to said wall; and fastening means interconnecting the adjacent ends of said number of strips beneath said second section of said body for maintaining said strips in fixed relation to one another.

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