

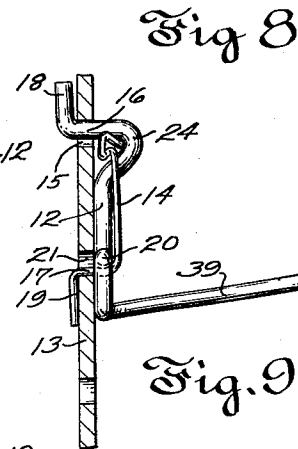
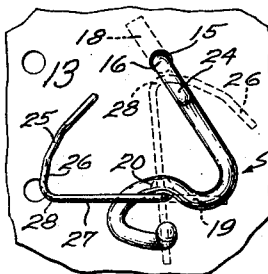
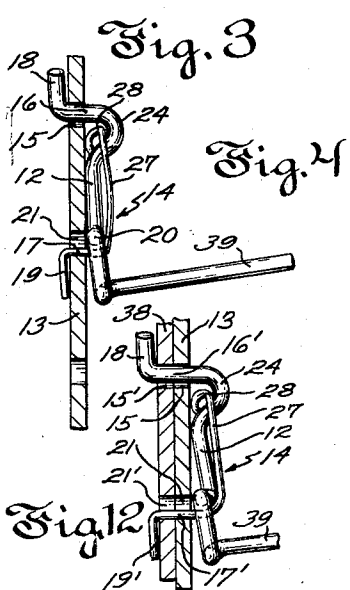
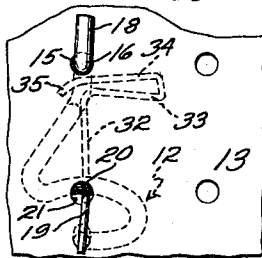
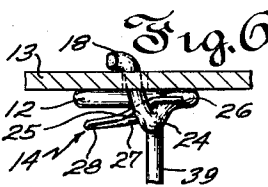
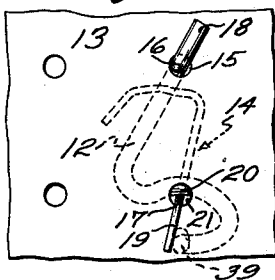
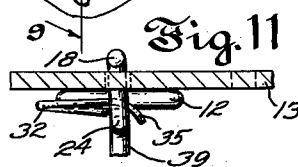
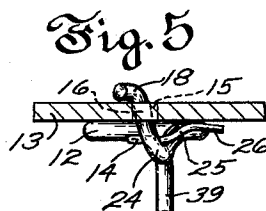
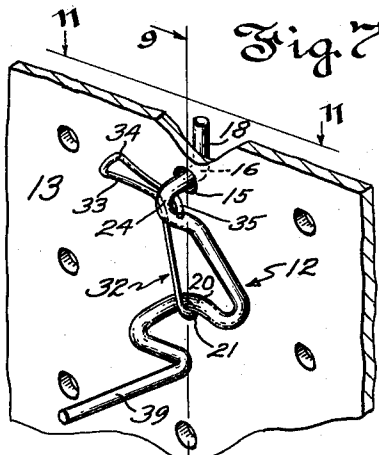
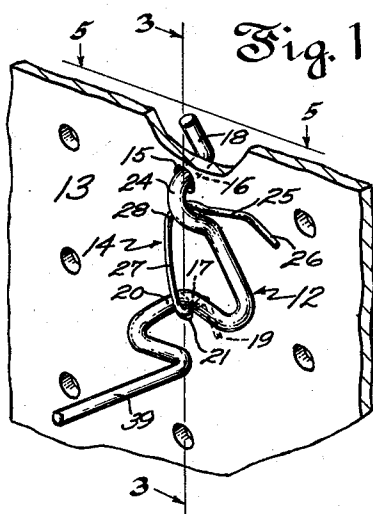
Oct. 25, 1960

J. A. A. MESSIER

2,957,671

BENT WIRE STAYING DEVICES FOR ARTICLE SUPPORT

Filed Sept. 30, 1959



INVENTOR
Joseph A. A. Messier
BY *R. D. Smith*
ATTORNEY

1

2,957,671

BENT WIRE STAYING DEVICES FOR ARTICLE SUPPORT

Joseph A. A. Messier, R.F.D. 1, East Montpelier, Vt.

Filed Sept. 30, 1959, Ser. No. 843,581

9 Claims. (Cl. 248—223)

This invention relates to bent wire staying devices to be fastened against the front surface of a perforate wall board such for instance as the stiff plate-like article support panels known by the trademark "Peg Board" containing numerous anchorage holes engageable by the jogged ends of wire hooks or other article supports. The present improvements also relate to quick releasable means for holding two or more such perforate wall boards or panels firmly clamped together in face to face contact by the use of only two such wire staying devices having jogged ends anchored in the holes of the wall board.

An example of article supporting wire hooks or bracket forming wires of the general kind here concerned is disclosed in my U.S. Patent No. 2,884,221 wherein an article supporting bed wire, anchored in a hole of the perforate wall board, is retained in fixed position against the flat surface of the board by a cooperative stay wire of which a plurality are utilized in my said patent, themselves also anchored in holes of the perforate board in a manner to be swung into and out of positions to interlock with each other.

An object of the present improvements is to effect a secure fixity of a bed wire anchored in a hole of the perforate wall board by means of a single stay wire which itself is similarly anchored in a different hole of the wall board.

Another object is so to form the bed wire and a single stay wire that they interlock releasably with each other without the use of tools.

A further object is to bend a length of the bed wire and the stay wire into such cooperative shapes that each of said wires holds the other pressed firmly against a common surface of the wall board in fixed relative position from which both wires can be released by merely swinging the stay wire relatively to the bed wire and to the wall board.

A further object is to make the stay wire easily accessible for being swung into and out of interlocking relation with the bed wire by mere finger manipulation.

A further object is to make the single bed wire of relatively large gauge and rigid wire stock and to make the single stay wire of relatively small gauge and resilient wire stock.

A further object is to enable the bed wire and the stay wire to serve as a fastening for releasably clamping together firmly in face to face relationship two perforate plates having registering holes for simultaneous engagement by the bed wire and stay wire of these improvements.

A still further object is to provide the bed wire with a projecting terminal portion capable of serving as a hook or bracket or other form of article support that projects away from the surface of the wall board.

The foregoing and other objects of the invention will be clear in greater particular in the following description of successful embodiments of the invention, which de-

2

scription has reference to the accompanying drawings wherein:

Fig. 1 shows in perspective a fragmentary view of a perforate wall board or panel on which are mounted a bed wire and a stay wire mutually wedged against the surface of the board in releasable fixed position according to the principles of the invention.

Fig. 2 is a fragmentary elevation looking at the rear surface of the wall board of Fig. 1.

Fig. 3 is a view taken in section on the plane 3—3 in Fig. 1, looking in the direction of the arrows.

Fig. 4 is a front elevation showing the stay wire swung to position to release the bed wire.

Fig. 5 is a view taken in section on the plane 5—5 in Fig. 1, looking in the direction of the arrows showing the stay wire in fastened position.

Fig. 6 is like Fig. 5 showing the stay wire in approach to its fastened position.

Fig. 7 is like Fig. 1 showing a modified shape of stay wire.

Fig. 8 is a view like Fig. 2 showing the stay wire modified as in Fig. 7.

Fig. 9 is a view like Fig. 3 taken in section on the plane 9—9 in Fig. 7 showing the stay wire modified as in Figs. 7 and 8.

Fig. 10 is a view like Fig. 4 showing the stay wire modified as in Figs. 7, 8 and 9.

Fig. 11 is a view taken in section on the plane 11—11 in Fig. 7.

Fig. 12 shows two perforate plates clamped together by use of a bed wire and stay wire shaped and related according to these improvements.

In Figs. 1—6 an article support is represented by a bed wire 12 adapted by the present invention to be releasably immobilized against the flat surface of a wall board 13 by a single stay wire 14. Wall board 13 is made perforate by the polarity of anchorage holes 15 which if equally spaced from one another are characteristic of the anchorage holes in the stiff plate-like panel product known by the trademark "Peg Board." It has been proposed heretofore to provide wires such as 12 and 14 with jogged end portions for anchorage in such holes similar to the end portion 16 of bed wire 12 or the end portion 17 of stay wire 14. Such end portions are insertible in any chosen one of the anchorage holes 15 in a manner to permit the wire having the jogged end portion to swivel and swing in whatever hole 15 it may be inserted. The wire is swingably retained in such hole by retentive engagement with the rear surface of the board by the offset end 18 of the jog 16 of bed wire 12, or 19 of stay wire 14.

According to the present improvements the bed wire 12 having the jogged end portion 16 is elsewhere bent to a sinuous shape in a mainly uniplanar course disposed flat against the front surface of wall board 13, there being one angularly arched bend 20 in said sinuous course of bed wire 12 whose concavity lies in close proximity to a different hole 21 in the wall board. The bed wire departs from its uniplanar course adjacent its jogged end portion 16 by having formed thereat a forward jutting loop 24 that outstands from the front surface of the wall board sufficiently to permit a cam-shaped bend 25 in the branch arm 26 of stay wire 14 to enter between the concavity of loop 24 and the front surface of the wall board and thereat retentively engage with the loop of the bed wire when the stay wire 14 is swung clockwise about its pivotal anchorage hole 21 from its fully released position, shown in Fig. 4, to its fully fastened position shown in Figs. 1, 2, 3 and 5, and shown by broken lines in Fig. 4. Fig. 6 shows one position of approach of the branch arm 26 of the stay wire to its fully fastened position in Fig. 5. In fastened position of arm 26 of the

stay wire it may actually wedge between the bed wire and the wall board. Figs. 2 and 3 best show the retention of the jogged end portion 17 of stay wire 14 in the same anchorage hole 21 to which the concave bend 20 in the bed wire lies closely adjacent. The bed wire may partly overlap hole 20 as is shown in Fig. 2. The length of stay wire 14 that forms the jog 17 and extends through hole 21 is no greater than the combined thickness of wall board 13 and the bed wire 12 and thus sets up a retentive friction between these parts releasably opposing its withdrawal from fastening position.

The branch arm 27 of stay wire 14 joins the branch arm 26 at an elbow 28 and as is apparent from Figs. 1, 3 and 6 this branch arm 28 is constantly held forward away from the front surface of the wall panel sufficiently to be easily graspable by one's fingertips for swinging the stay wire 14 to and from its aforesaid fastened position while its jogged end portion 17 remains pivotally anchored in hole 21 and retained therein by the terminal 19 of the jog 17. This enables arm 27 of the stay wire to bind the bed wire 12 firmly against the surface of the wall board at the bend 20 when the cam-shape 25 of branch arm 26 enters in the loop 24 of the bed wire between the latter and the front surface of the wall board and becomes retentively engaged releasably with such loop of the bed wire.

Figs. 7, 8, 9, 10 and 11 show a modified form of the stay wire 32 in which its branch arm 33 is not designed in its entirety to pass through the loop 24 in the bed wire 12, but instead is doubled back upon itself to serve as a handle 34 for swinging stay wire 32 about its pivotal anchorage in hole 21 of the wall board 13. The handle 34 has a partially hooked end 35 which enters under the loop 24 in bed wire 12 and clings retentively thereto when arm 27 of stay wire 32 is sprung backward toward the face of the wall board thus serving to bind the bed wire fixedly against the surface of the wall board as does the stay wire 14 in Figs. 1-6, inclusive. The thus fixed and immobilized bed wire causes to be firmly positioned an extension 39 of its sinuous uniplanar portion which projects forward away from the front surface of the wall board and preferably somewhat upward to serve as a hook or wire bracket article support.

Fig. 12 shows how the wire staying devices of Figs. 1-11 inclusive, may be employed to clamp firmly together the wall board 13 and any flat plate-like article such as 38 having holes 15' and 21' which register in spacing with holes 15 and 21 respectively in wall board 13.

The bend 20 in bed wire 12 may have an abruptness of angle suited to the use of the invention, a more acute angle at this bend producing more positive fixity against swinging of the bed wire about its jog 16 parallelly with the face of the wall board. This and many other possible variations in the relative sizes and relationships of the parts suggested by this disclosure are intended to be covered by the appended claims according to the breadth of language by which they define the invention.

I claim:

1. Bent wire staying devices to be fastened against the front surface of a perforate wall board containing a plurality of anchorage holes, comprising in combination with said wall board, a bent length of stiff bed wire having a jog anchored in swivel permitting engagement with a first one of said holes and having an end portion engaged retentively with the rear surface of said board, said bed wire having a continued portion of its length bent to sinuous shape in a mainly uniplanar course parallelling the front surface of the board and extending closely proximate a different one of said holes, and a stay wire for immobilizing said bed wire bent to elbow shape having angularly divergent arms, at least one of said arms being resilient and having a jog in swivel permitting anchored engagement with said different one of said holes and having an end portion retentively engaged with said

rear surface of said board, said arm crossing and overlying said bed wire near said different one of said holes being thereby spaced forward away from said front surface of the board, the other of said arms being shaped and disposed to be swung in an arc to a position for retentive engagement with said bed wire between the latter and said board in a manner to bind said bed wire against said board.

2. Bent wire staying devices as defined in claim 1, in which the said sinuous continued portion of the said bed wire has a terminal portion extending away from the front surface of the said wall board to form an article support.

3. Bent wire staying devices as defined in claim 1, in which each of the said wires crosses the other of said wires in the respectively close neighborhoods of each of the said holes.

4. Bent wire staying devices as defined in claim 1, in which the said bed wire juts forward in a loop away from its said uniplanar course between the said jog and the said sinuous shape of said bed wire and the said other arm of the said stay wire is retentively engageable with the said loop.

5. Bent wire staying devices as defined in claim 4, in which the said other arm of the said stay wire has an offset bend located to cam retentively against the said forward jutting loop in the said bed wire.

6. Bent wire staying devices as defined in claim 4, in which the said other arm of the said stay wire has an end in hooked engagement with the said forward jutting loop in the said bed wire.

7. Bent wire staying devices to be fastened against the front surface of a perforate wall board containing a plurality of anchorage holes, comprising in combination with said wall board, a bent length of stiff bed wire having a jog anchored in swivel permitting engagement with a first one of said holes and having an end portion engaged retentively with the rear surface of said board, said bed wire having a looping continued portion of its length bent to sinuous shape in a mainly uniplanar course parallelling the front surface of the board and extending closely proximate a different one of said holes and to both sides of a straight line intersecting both of said holes, and a stay wire for immobilizing said bed wire bent to elbow shape to form angularly divergent arms, at least one of said arms being resilient and having a jog in swivel permitting anchored engagement with said different one of said holes and having an end portion retentively engaged with said rear surface of said board, said arm crossing and overlying said bed wire near said different one of said holes and thereby spaced forward away from said front surface of the board, the other of said arms being shaped and disposed to be swung in an arc to a position in retentive engagement with said bed wire between the latter and said board in a manner to bind said bed wire against said board and maintain parallellism between said looping portion of said bed wire and the face of said board.

8. Bent wire staying devices as defined in claim 7, in which the said looping portion of the said bed wire closely passes and is arched concavely with respect to the said different one of the said holes.

9. Bent wire staying devices as defined in claim 8, in which the said stay wire is resilient and of relatively smaller gauge than the said bed wire and the arched portion of the said looping portion of said bed wire overlaps at least a portion of the said different one of said holes.

References Cited in the file of this patent

UNITED STATES PATENTS

2,859,008	Zimmer	Nov. 4, 1958
2,884,221	Messier	Apr. 28, 1959