June 20, 1967 C. E. ZIDEK 3,326,388

ARTICLE RETAINING RACK

Filed March 10, 1965

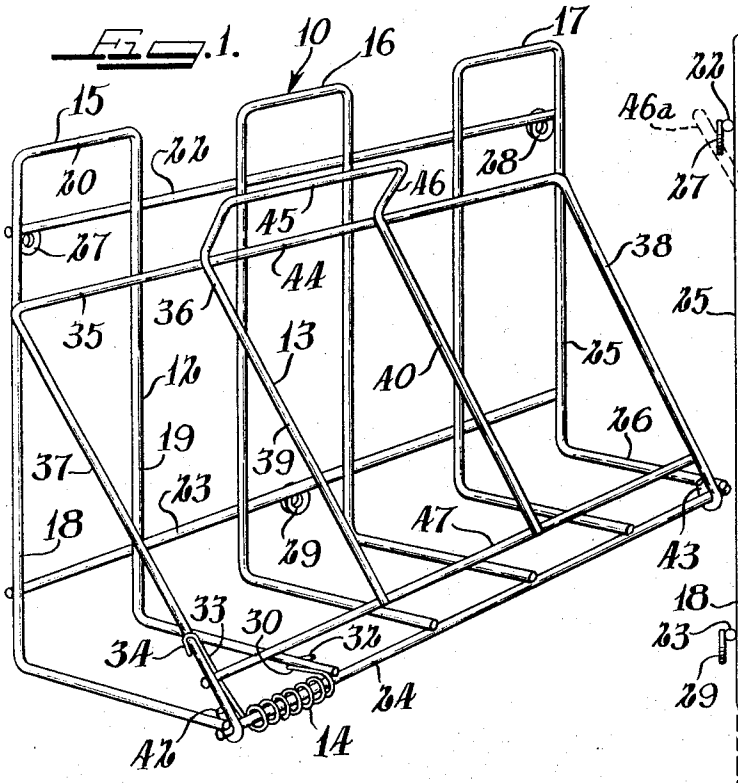


FIG. 1.

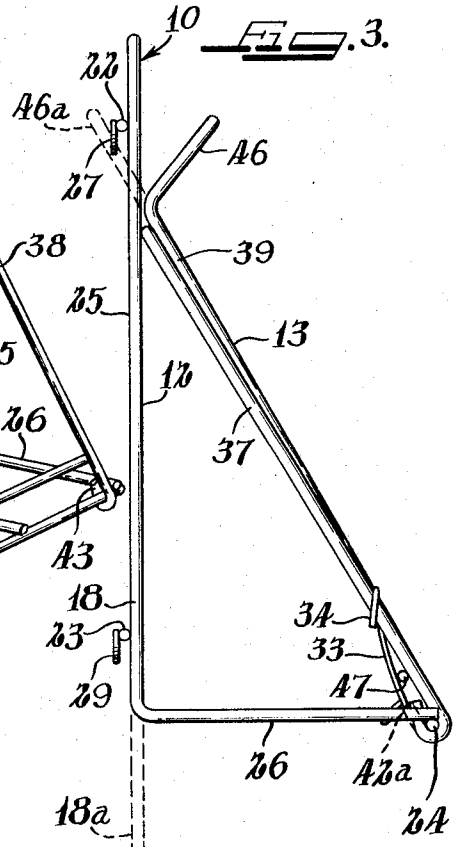


FIG. 3.

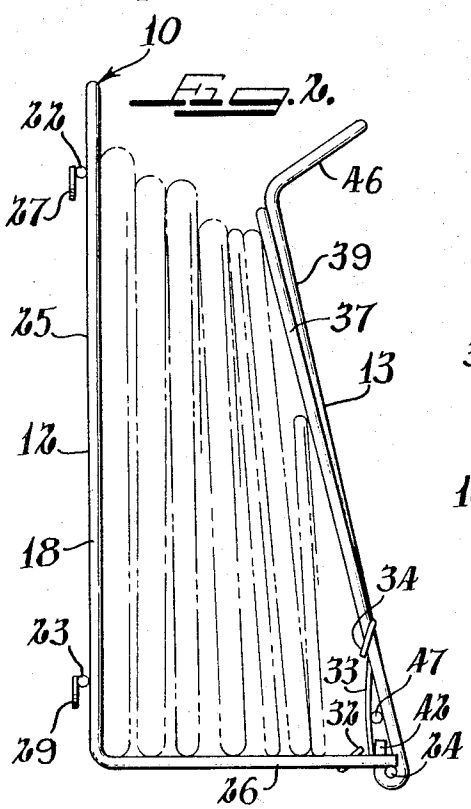


FIG. 2.

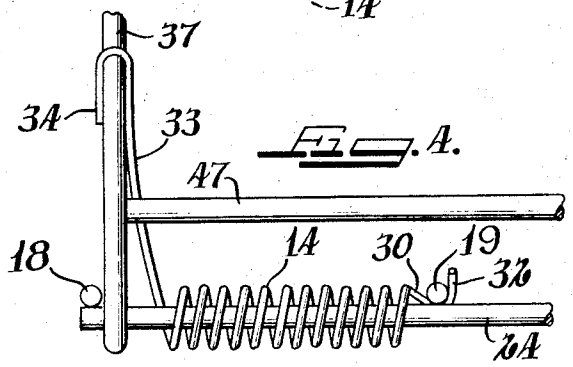


FIG. 4.

INVENTOR
CHARLES E. ZIDEK

BY
Horton, Davis, Brewer & Brugman
Attys.

United States Patent Office 3,326,388
Patented June 20, 1967

3,326,388

ARTICLE RETAINING RACK

Charles E. Zidek, 142 Akenside Road,
Riverside, Ill. 60546

Filed Mar. 10, 1965, Ser. No. 438,569
1 Claim. (Cl. 211—51)

This invention relates to article retaining racks, and more particularly to such racks having relatively movable supporting and gripping parts resiliently biased to positions for gripping supported and retained articles therebetween.

Although the article retaining racks contemplated by this invention are not necessarily limited to any particular size or proportions, or to the retention of any particular kind or types of articles, the relatively common practice of housewives to save grocery bags and pieces of wrapping paper and the like provides one type of use to which the rack of this invention is well adapted.

One of the objects of this invention is to provide an article retaining rack having one normally stationary part adapted to be hung on an upright surface, such as a wall or door, and another part relatively movable with respect to said one and resiliently biased to a position for gripping articles between the parts.

Another object of the invention is to provide an article retaining rack of a structure such that it is adapted to production from a limited number of readily formed parts which are easily producible from wire stock.

This invention has for another object the provision of an article retaining rack wherein a supporting part has portions in angular relationship to one another, a gripping part hingedly connected to one portion of the supporting part in spaced relationship to the other portion thereof, and a coil spring having ends connected to both parts for biasing the hingedly connected parts toward one another about the axis of the hinge connection.

These and other objects of this invention will become apparent from the following detailed description of a preferred embodiment when taken together with the accompanying drawings, in which:

FIGURE 1 is a perspective view of an article retaining rack which is illustrative of a preferred embodiment of this invention;

FIGURE 2 is a side elevational view of the article retaining rack shown in FIGURE 1, and depicts the parts in positions which might be assumed in use while having articles retained therein;

FIGURE 3 is a view similar to FIGURE 2, but wherein dotted lines illustrate parts of the structure at intermediate stages of the production of the rack;

FIGURE 4 is a fragmentary front elevational view depicting a detail of a portion of the structure shown in the aforementioned figures.

Considered generally, the exemplary embodiment of my invention which is disclosed herein for illustrative purposes constitutes an article retaining rack **10** which includes a supporting part **12** and a gripping part **13** which are hingedly connected together for movement relative to one another, and have a torsion spring **14** which biases the top portions of the supporting and gripping parts toward one another.

In order to promote simplicity and low cost production, each of the parts of the disclosed article retaining rack is made up of a relatively small number of components, as many as possible of which are alike and which are readily assemblable. The supporting part **12** includes like pieces **15, 16** and **17** which are each, in the present instance, formed from single pieces of wire stock. In my preferred manner of assembly, each of the like pieces **15, 16** and **17** is initially formed in a U-shape having substantially parallel side portions **18** and **19** adjoined through an integral connecting portion **20**. The pieces **15, 16** and **17** are secured together in spaced and substantially parallel relationship to one another by cross pieces **22, 23** and **24**, as by having the cross pieces spot welded to each of the sides of the pieces **15, 16** and **17** at their respective junctures. In my preferred manner of production, the sides, such as **18** and **19** of each of the pieces **15, 16** and **17** remain straight and extend as shown at **18***a* in FIGURE 3, until after the pieces and cross pieces are assembled and welded together. Then, the sides **18** and **19** of the like pieces **15, 16** and **17** are desirably bent simultaneously to provide portions in right angular relationship to one another and to define a back portion **25** and a bottom portion **26**. For supporting the part relative to an upright surface, such as a wall or door, supporting elements such as metal washers **27, 28** and **29** are secured to the cross pieces **22** and **23** by welding, so that the cross pieces extend across margins of the washers and the holes in the washers are exposed for the accompanying of fastening means, such as screws, nails or hooks.

Before the cross piece **24** is secured in place, the torsion spring **14** is placed thereon, so that it is disposed between the sides **18** and **19** of the piece **15**. This spring is in the form of a coil having its convolutions encompassing an end region of the cross piece **24**. The spring has an extending arm **30** at one end which includes a hook portion **32** for engagement with the side **19** of the piece **15**. At its other end, the spring **14** has another arm **33** with a hook portion **34** thereon which, in the final assembly is engaged with the gripping part of the rack structure, as shown in FIGURES 1 and 2.

The gripping part **13** embodies two substantially U-shaped pieces **35** and **36** of different sizes secured together with substantially straight side portions **37, 38, 39** and **40** thereof extending in the same general direction. The substantially U-shaped piece **35** is of a width commensurate with that of the supporting part and has hooked end portions **42** and **43** on the ends of the side portions **37** and **38** respectively which are remote from an integral connecting portion **44** thereof, which hooked end portions **42** and **43** are engaged with the cross piece **24** of the supporting part to serve as a hinge connection between the parts and the assembly. As initially formed, the hooked end portions **42** and **43** are generally parallel to the side walls **37** and **38**, as shown at **42***a* in FIGURE 3, until after the gripping part has been assembled with the supporting part, whereupon the ends of the hooked portions are bent toward the side portions **37** and **38** to hold the supporting and gripping parts in their assembled relationship and serve as a hinge connection therebetween. When the supporting and gripping parts are assembled, the hook portion **34** on the spring **14** is engaged with the side portion **37** and with the spring stressed to bias the tops of the supporting and gripping parts toward one another.

The substantially U-shaped piece **36** is narrower than the piece **35** and is disposed at a position relative to the piece **35** in which the side portions **39** and **40** thereof cross the connecting portion **44** of the piece **35**, whereupon an integral connecting portion **45** of the piece **36** is in spaced and substantial parallel relationship to the connecting portion **44** of the piece **35**. A portion **46** of the U-shaped piece **36** which extends above the connecting portion **44** of the piece **35** is initially straight, as shown at **46***a* in FIGURE 3, and is then bent outwardly, so as to project away from the back portion of the supporting part and serve as a handle for effecting movements of the gripping part away from the supporting part and against the biasing force of the spring **14**. The ends of the side portions **39** and **40** of the substantially U-shaped piece **36** and end regions of the side portions **37** and **38** of the substantially

U-shaped piece **35** are secured together by a cross piece **47** which is like the cross pieces **22, 23** and **24**, and which is secured to each of the side portions by welding.

From the foregoing description and reference to the accompanying drawings, it may be readily understood that the article retaining rack disclosed herein is a relatively rugged and effective structure adapted to quantity production from relatively few parts of different structure which can be inexpensively and readily produced from wire or strip stock. Furthermore, the article retaining rack which is herein disclosed is light in weight, neat in appearance and effectively usable for retaining various quantities and sizes of articles.

Although the embodiment illustrated herein is the preferred form of this invention, it is understood that the invention may take other forms, and the scope of this invention, therefore, is not to be limited to the embodiment illustrated, but is to be determined by the appended claim.

I claim:

An article retaining rack comprising, in combination, a supporting part embodying a plurality of like substantially L-shaped pieces having base and back portions in angular relationship to one another and a plurality of cross connecting elements secured to each of said pieces for holding the pieces in spaced and substantially parallel relationship to one another with their respective base and back portions defining angularly related planes, each of said like substantially L-shaped pieces being formed of wire stock and embodying substantially parallel back and base portions integrally connected at the tops of the back

portions, one of said connecting elements being secured to the base portions of said pieces at positions remote from the back portions, a gripping part hingedly secured to said one of the connecting elements and embodying a plurality of pieces secured together with side leg portions in generally coplanar relationship, said side leg portions of each piece being integrally connected at one end by an intermediate portion, the intermediate portions of the pieces being of different lengths, and the leg portions of the piece having the shorter intermediate portion being disposed to cross the mid-region of the intermediate portion of the other piece, and a coil spring encompassing said one of the connecting elements and having ends engaged with pieces of both the supporting and gripping parts for resiliently biasing the portion of the gripping part remote from said one of the connecting elements toward the back portion of said supporting part.

References Cited

UNITED STATES PATENTS

D. 182,404	4/1958	Dickson	80—10
410,571	9/1889	Beighel	211—51
916,018	3/1909	Richard	224—25
2,635,761	4/1953	Purifoy	211—51
2,994,441	8/1961	Browning	211—177

JOHN PETO, *Primary Examiner.*

CLAUDE A. LE ROY, *Examiner.*

K. J. WINGERT, *Assistant Examiner.*