

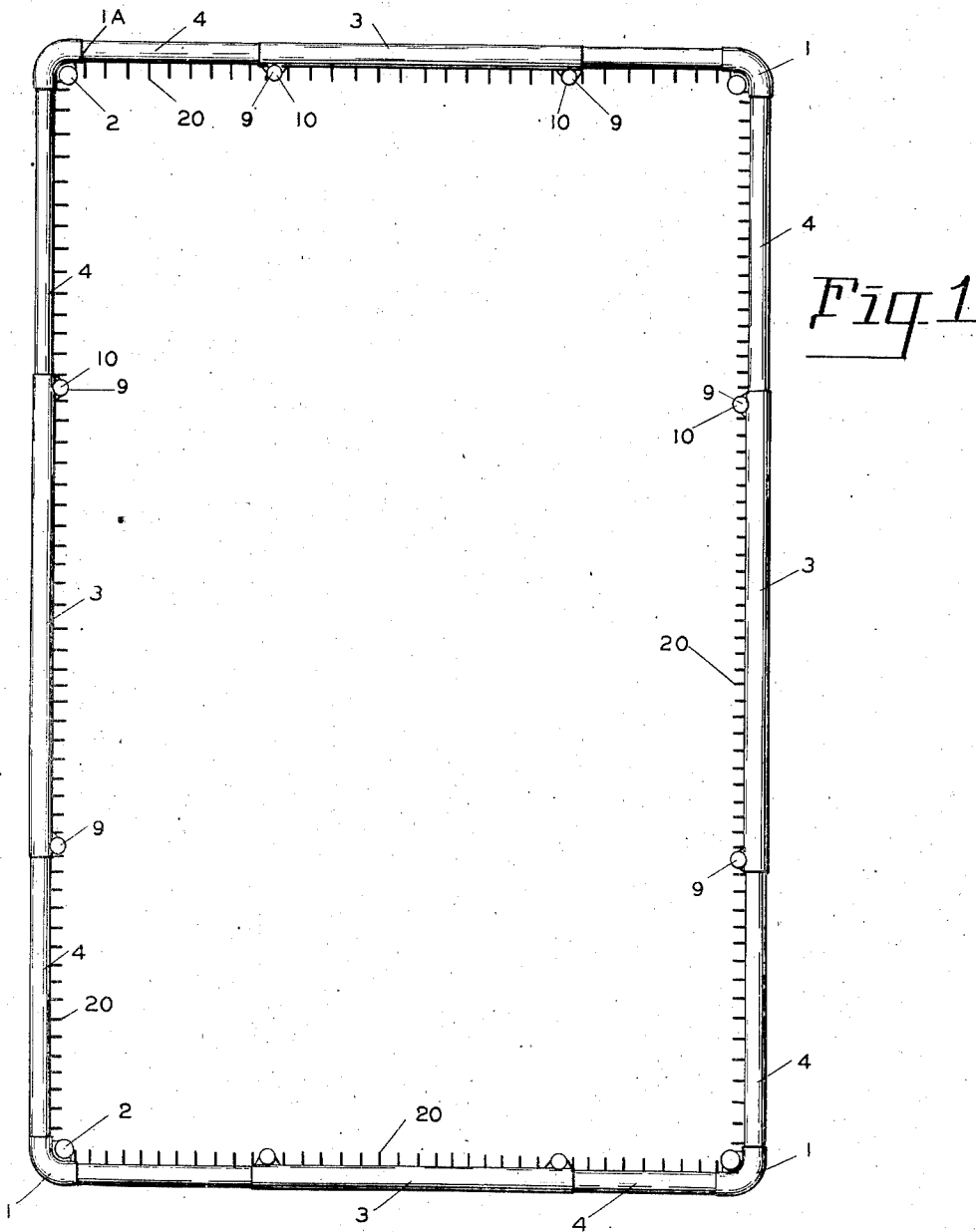
Dec. 7, 1948.

C. F. ASHBAUGH
CURTAIN STRETCHER

2,455,640

Filed Feb. 20, 1947

2 Sheets-Sheet 1



INVENTOR
CLAIR F. ASHBAUGH

By *G. F. McLaughlin*
ATTORNEY

Dec. 7, 1948.

C. F. ASHBAUGH
CURTAIN STRETCHER

2,455,640

Filed Feb. 20, 1947

2 Sheets-Sheet 2

Fig 2

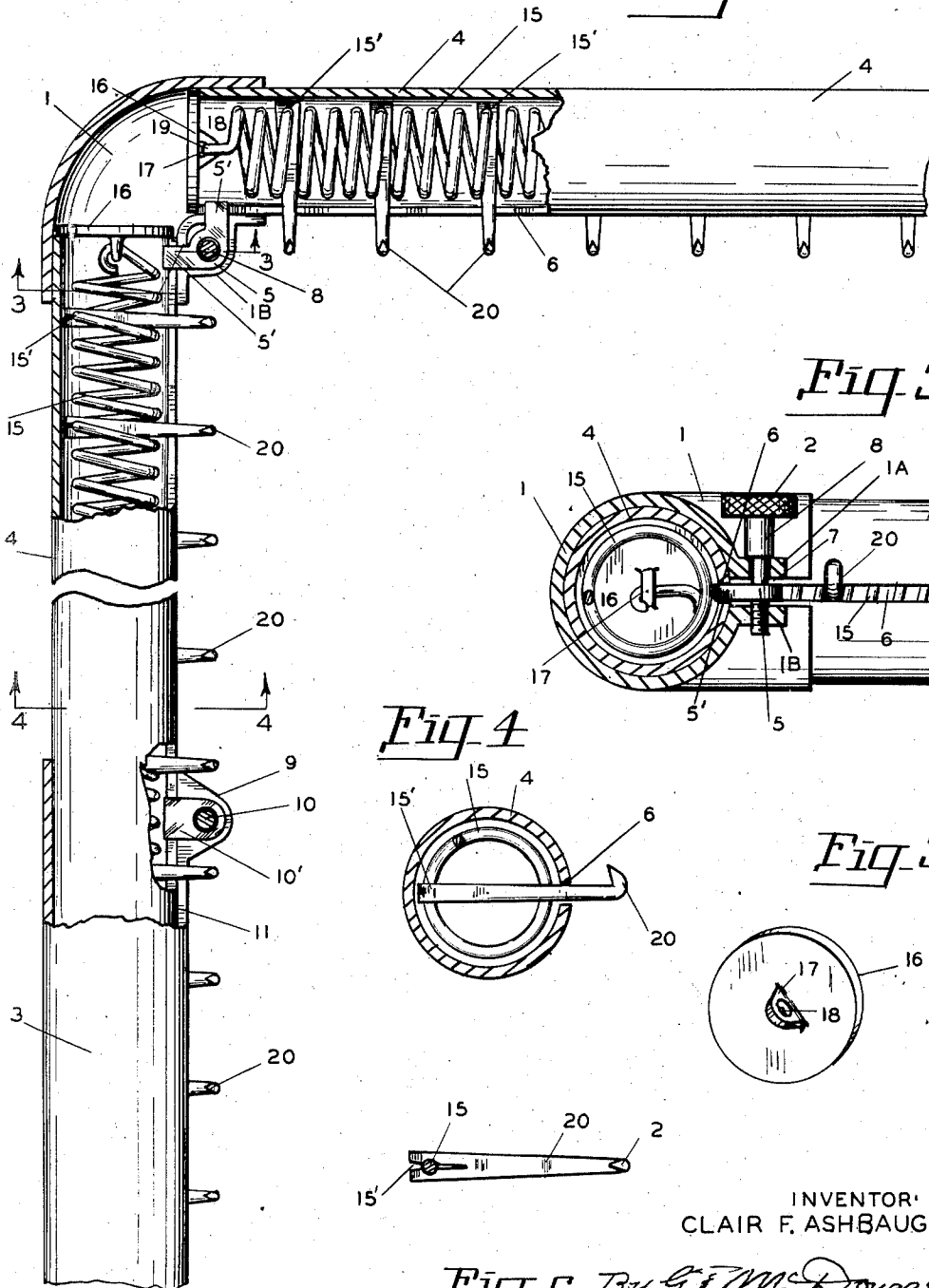


Fig 3

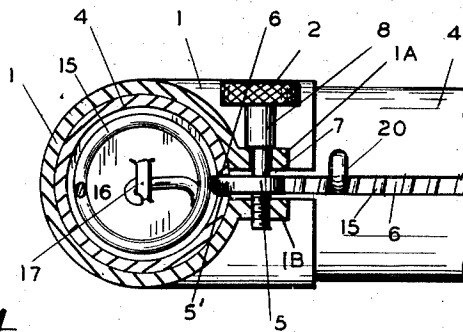


Fig 4

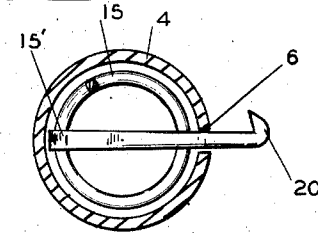
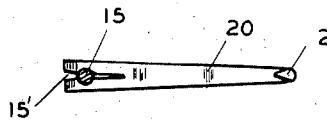
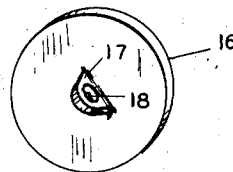


Fig 5



INVENTOR:
CLAIR F. ASHBAUGH

Fig 6 By *G F Mc Dougall*
ATTORNEY

UNITED STATES PATENT OFFICE

2,455,640

CURTAIN STRETCHER

Clair F. Ashbaugh, Portland, Oreg.

Application February 20, 1947, Serial No. 729,699

2 Claims. (Cl. 45—24)

1

2

This invention relates to a "curtain stretcher," probably designated with greater accuracy as a curtain dryer or curtain frame, as stretching with enough force to keep the curtain straight so that it can be hung without ironing is the purpose of all of the adjustable curtain frames.

Since a curtain contracts when changing from the wet to dry state, it is very apt to be distorted to the detriment of its even appearance; the word "contracts" being used instead of shrinking as the latter, applied to fabrics has a settled meaning of permanent reduction.

It is an object of the invention to construct a curtain frame with hooks to which curtains may be attached by their borders, wherein each hook is spring sustained and yieldable to prevent distortion and impairment in appearance as the curtain dries and becomes smaller.

It is admitted that placing a single spring behind every hook could not be regarded as invention since anything may be hung on a spring, but I employ a single spring of slight construction and low cost to springily support a large group of hooks, greatly reducing the cost and attaining a uniformity of spring action on the hooks not believed possible with individual springs which, as stated, is another object of the invention.

Drawings accompany and form a part of the invention, in which—

Fig. 1 is a plan view of a rectangular, adjustable, tubular curtain frame embodying the invention;

Fig. 2 is a much enlarged view of the upper left hand corner of the structure shown in Fig. 1, taken between the boundaries indicated by the planes 2—2 in Fig. 1, the enlargement being foreshortened to make room for it on the sheet;

Fig. 3 is a section taken on the plane 3—3, Fig. 3, showing the clamping elbow, one of the clamp structures which makes the device possible;

Fig. 4 is a section taken on the plane 4—4, Fig. 2, showing a detail of the spring and the manner of springily supporting the plurality of hooks;

Fig. 5 is a perspective of the spring anchor to be explained; and

Fig. 6 is a detail of the hook, detached from the spring and indicating a preferred manner of attaching it to a loop of the spring.

Explaining the drawings in greater detail. Considering Fig. 1, the curtain frame is of conventional appearance except that the members are tubular and comprise elbows, 1, with clamp screws, 2, telescoping tubes such as 3 and smaller tubes, 4, that telescope into the tubes 3.

It is intended that the tubular members shall be rolled of sheet aluminum alloy or magnesium

alloy, the exact composition of which is no part of the invention. Since neither metal may be conveniently welded and drawn tube would be of prohibitive cost, the tubular members are rolled from sheets and when finished have slots from end to end.

Obviously, such a tubular frame member, made of the very light sheet material necessary to keep the cost where the frame can be used, will have no stability and cannot be clamped as shown without some device that offsets the fact of an end-to-end slot. To accomplish this I employ the clamp key 5, believed to be an entirely unique device, which makes the whole apparatus workable. As shown in Fig. 3 where only one of the two key parts 5' is seen, the key-part fits snugly into the slot 6 of the clamped tubular member 4 and loosely in the split slot 7 of the elbow 1. It will be at once apparent, then, that when the screw 8 is tightened, the whole elbow structure with its inserted tube will be rigid and also that the key parts 5' serve to keep the parts exactly in alignment. In Fig. 3, the ears 1A and 1B are made a part of the elbow 1, and it is to be noted that the slot 6 fits the key while the slot in the elbow is wide enough to allow screw pressure on the tube 4.

Clamps 9, are made a part of each tubular member 3, there being one at each end; and key clamps 10, with a single key-part 10', are so formed that they project through the slots 11 of the tubular members 3, and also the slots 6 of the smaller tubular members 4, serving the same purpose in the same way and permitting the relative telescoping action to approach closely to curtain size that is common to curtain frames.

Next, I will describe the hooks for holding the edges of the curtain fabric and the manner of making them exert a springy action on the curtain.

A spiral spring 15, of long pitch and light spring wire is attached to spring caps 16, with center lugs 17, provided with holes 18 by having their free ends rebent after passing through the holes 18 as shown at 19 in Fig. 2. These spring caps 16 have the same outside diameter as the tubes 4; springs preferably but not necessarily are of sufficient length so that there is only one spring for each run of tubes; that is, one for each side and one for each end; each end being secured to spring caps 16 as shown in the upper left hand section, Fig. 2. The spring will have sufficient extensibility and compressibility to permit the telescopic action of the tubular sides and ends without affecting the springy action on the hooks,

3

to impair it appreciably. The spring will work better if there is some stretch or tension in it when the curtain frame is sized for use.

A large number of hooks, 20, are securely attached to loops of the spring 15 and to get the necessary spring action they are attached to the spring at the side furthest from the slots in the tubular frame members. This makes of each loop an individual spring for the hook made rigid with its median portion and this springiness is present whether or not there is overall tension in the spring as a whole; though as stated, the action will be better if there is some overall tension. The operation of the curtain frame needs no further explanation.

Having fully described my new curtain frame and its principle of operations, what I claim is new and desire to secure by Letters Patent is:

1. A rectangular curtain frame made up of telescoping slotted tubular members with slotted elbows and slotted clamps at telescope points intermediate the elbows, a spiral spring disposed within each tubular member, a plurality of hooks, each made rigid with a separate spiral of said spring and projecting through said slots to the inside area of the frame, and means for clamping the said tubular members and the said slotted elbows together rigidly without collapsing the said slots to interfere with free movement of said hooks.

4

2. A rectangular frame enclosing a rectangular space comprising slotted tubular side members, slotted tubular end members, curtain hooks that project through said slots, and clamping means for securing said slotted members in adjusted position comprising a clamp member, ears thereon, a clamping screw member through the said ears and a clamp key between the said ears that projects through the said slots, said key projecting through said slots to prevent collapse of the slotted tubular members to bind the hooks when the tubular members are clamped by said clamping means.

CLAIR F. ASHBAUGH.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,073,341	Gleaves	Sept. 16, 1913
1,874,198	Edwards	June 19, 1938
2,309,078	Morano	Jan. 19, 1943

FOREIGN PATENTS

Number	Country	Date
2,345	Great Britain	1864