W. H. SHAVE & W. G. WILSON.

HOLDER.

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1,248,732. Patented Dec. 4, 1917.

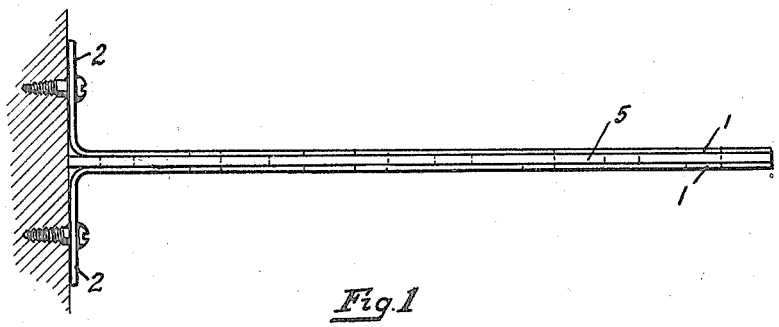


Fig. 1

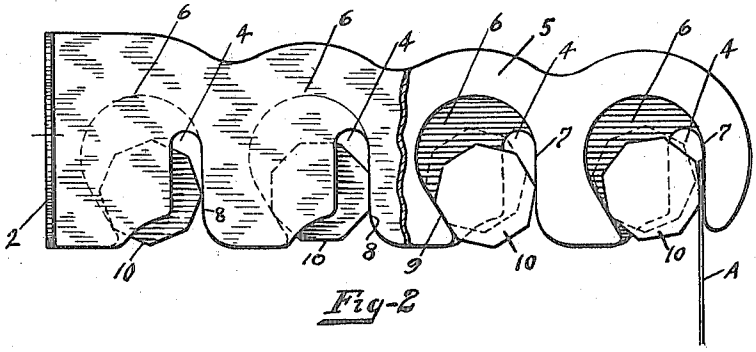
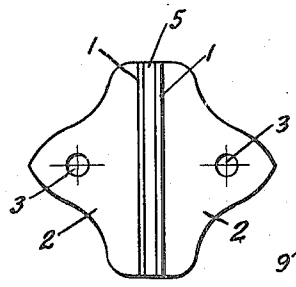


Fig-2

Fig-3



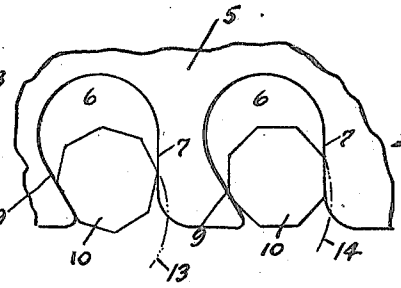


Fig-4

Inventor
William H. Shave
and
William G. Wilson

By H. Z. L.

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. SHAVE AND WILLIAM G. WILSON, OF ERIE, PENNSYLVANIA.

HOLDER.

1,248,732. Specification of Letters Patent. Patented Dec. 4, 1917.

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To all whom it may concern:

Be it known that we, WILLIAM H. SHAVE, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, and WILLIAM G. WILSON, residing in Erie, county of Erie, and State of Pennsylvania, formerly a citizen of the Dominion of Canada, my present status being that of one having a citizenship in Canada and a residence in the United States, having declared my intention of becoming a citizen of the United States, have invented new and useful Improvements in Holders, of which the following is a specification.

This invention relates to holders and consists in certain improvements in the construction thereof as will be hereinafter fully described and pointed out in the claim.

More particularly the invention relates to that type of holders from which articles, such as sheets of paper, are suspended.

The invention is illustrated in the accompanying drawings as follows:—

Figure 1 shows a plan view.

Fig. 2 a side elevation with one of the side plates partially removed.

Fig. 3 a front view.

Fig. 4 a view of a part of a cam plate with the dogs in place.

The holder is formed with two side plates 1—1. These side plates have their ends bent outwardly at 2—2 forming bases by means of which the holder may be secured to the wall or other support as shown in Fig. 1. The base pieces 2 have the perforations 3 through which screws may be passed for this purpose. The side plates have the slots 4 extending upwardly from the bottom of the plate. There are a plurality of these slots arranged along the bottom of the plate. A cam plate 5 is secured between the side plates preferably by spot welding. The cam plate has the slots 6, the front sides 7 of these slots coinciding with the front sides 8 of the side slots. The rear faces of the slots 6 have the cam surfaces 9 which slant toward the faces 7 and 8 at the bottom. Dogs 10 are arranged between the side plates 1 and in the slots 6. One edge of the dog rests against the cam surface 9 and the opposite edge against the opposite face of the slots.

These dogs are crowded over by the cam surface 9 against the outer sides of the slots so that if a sheet of paper as A is inserted between the outer faces of the slots and the dog the weight of the dog acting on the cam surface will form an initial grip on the inserted sheet. As the weight of the sheet or pressure is applied to the sheet this downward pressure increases the gripping force of the dog by tending to pull the dog into the narrower portion of the slot.

We prefer to form the dogs with varying cross dimensions. As shown they are octagonal in shape. Where these dogs are perfect circles they will grip the sheet but at the same time can rotate on the cam surface so as to permit the inserted sheet to be pulled out or to drop out. With the dog formed with varying cross dimensions and especially octagonal shape this effect is obviated. By observing Fig. 4 it will be noted that where the side of the dog rests on the cam surface 9 as at the left of Fig. 4 a rolling action would tend to form the curve 13. Such a curve is obviously impossible so that a rolling action of the dog must result in an upward movement bringing it into the wider portion of the slot. Thus the gripping action is very much increased. Again if the dogs take the position shown at the right of Fig. 4 a rolling action would tend to form the curve 14 and the same result would follow. Furthermore the corner formed between the sides would grip the cam surface to such an extent as to prevent the rolling action.

It will be observed that a holder of this form can be made entirely from stampings and the dogs housed and locked in place by the mere assembling of the plates. This can be done very conveniently by spot welding so that the holder as a whole has a finished appearance.

What we claim as new is:—

In a holder, the combination of two side plates each having an outwardly bent base portion and a plurality of slots extending

upwardly along the bottom thereof; a cam plate arranged between the side plates, said cam plate having slots opening into the slots in the side plates and extending between the side plates, the cam slots having a cam surface; and dogs arranged between the side plates and within the cam slots, said dogs having one edge resting on the cam surface and the opposite edge on the opposite sides of said slots.

In testimony whereof we have hereunto set our hands.

WILLIAM H. SHAVE.
WILLIAM G. WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."