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M. KOTTAS

3,406,412

PICK

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Fig. 1

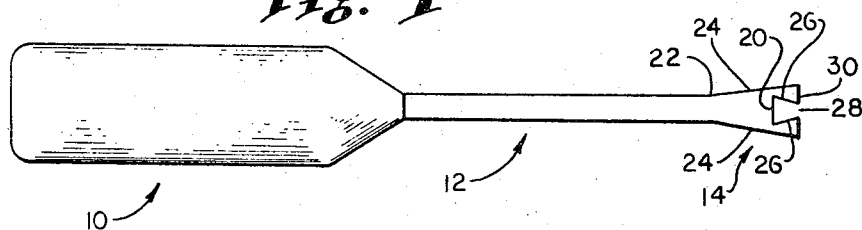


Fig. 2

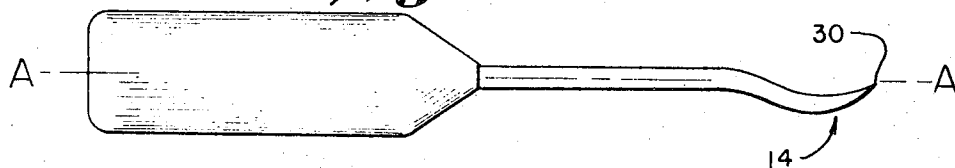


Fig. 3

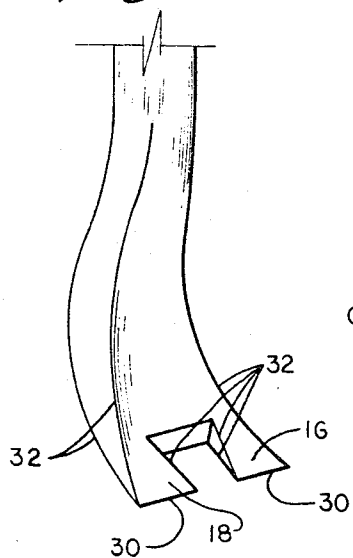


Fig. 4

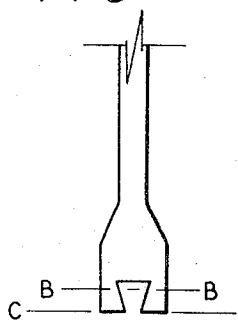
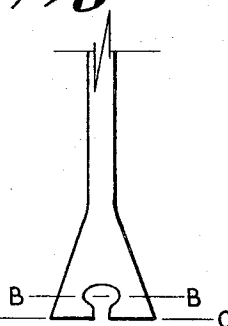


Fig. 5



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PICK

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ABSTRACT OF THE DISCLOSURE

A pronged hand tool for breaking and removing the seal of a container and removing packing therefrom, having a curved shaft terminating in spaced prongs with a restricted neck to the open space between the prongs.

The present invention relates generally to a tool or instrument known as a pick, and more particularly, the present invention relates to a multi-purpose pick which is easily manipulated by an operator to execute different functions in removing the various types of closures used to seal containers and to remove packing or other foreign articles therefrom so as to free the contents of the container for removal. Although a tool embodying in varying degrees of specificity the features of the present invention could be adapted for use in many fields, for ease of illustration the invention is described with reference to a pick which is particularly useful in the pharmaceutical profession. Thus, it should be understood that the illustrative preferred embodiment is not intended in any way to limit the scope of the invention as defined by the claims appended hereto.

Individual containers for shipping or storing pharmaceutical products are usually filled with compacted cotton packing to protect the contents, especially if in pill or capsule form, and the containers are then hermetically sealed. However, containers provided by different manufacturers are not uniform and are sealed and packed in numerous ways so that a variety of tools must be maintained by a pharmacist for assistance in dispensing medicine. In addition to the cost involved in maintaining a variety of such tools, they have proved in practice to be generally unsatisfactory in cleanly opening a container and in efficiently removing the packing therefrom, are time consuming, and are a cause of continual annoyance to the user. The present invention overcomes these named disadvantages by providing a single multi-purpose pick which is inexpensive to manufacture and both convenient and efficient in its diverse use.

An object of the present invention is to provide an improved pick.

Another object of the present invention is to provide an improved instrument which expedites opening and dispensing the contents from sealed containers.

Yet another object of the present invention is to provide an improved tool which obviates the annoyance generally associated with opening and dispensing pharmaceutical products from the several types of sealed containers used by drug manufacturers.

Still another object of the present invention is to provide a simple, inexpensive multi-purpose pick for opening hermetically sealed containers and removing any internal packing therefrom.

Still other and further objects, advantages and features of the present invention will be apparent to persons skilled in the art and armed with a general knowledge and understanding of the principles of the invention as illustrated by the preferred embodiment described hereinafter.

Toward accomplishment these objects, the invention generally comprises a pick having a conventional handle which is easily grasped for manipulating the pick, a shaft extending from said handle, and a head portion curving from said shaft generally backward and then forward and

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terminating in spaced tines or prongs extending generally outward and forward, the principal feature of the invention being in the novel construction of the head portion and tines which are shaped to accomplish with ease the foregoing objects.

I have set forth with particularity in the appended claims the novel features which I consider characteristic of my invention, but the invention itself, its structure, operation, advantages, rearrangements or modifications, will be best understood from the following description of the presently preferred embodiment of the invention taken in conjunction with the illustrative drawings in which like characters denote like parts.

FIG. 1 is a front elevation view of a pick embodying the novel features of my invention;

FIG. 2 is a side elevation view of the pick illustrated in FIG. 1;

FIG. 3 is a perspective view of the head portion of the pick illustrated in FIG. 1; and

FIG. 4 is a front elevation view of a modified embodiment of the head portion of the novel pick.

FIG. 5 is a front elevation view of another modified embodiment of the head portion of the novel pick.

Referring more specifically to the drawings, reference 10 refers generally to a handle portion of the pick, reference 12 refers generally to a shaft portion, and reference 14 refers generally to the head portion which curves generally backward and then forward from the shaft and terminates in spaced tines 16 and 18 which form an open space 20 between them. As best illustrated in FIG. 1, from the juncture 22 where the shaft flares outward to form the tines, the respective outermost faces 24-24 of the two tines preferably flare out and diverge along substantially straight lines. The innermost faces 26-26 of the respective tines which define the opening between said tines, preferably converge toward the end of the pick opposite the handle so as to provide a restricted neck 28 to the open space 20 between the tines. Each tine is formed with curved front and rear faces which converge to terminate in a knife edge 30, and substantially rectangular corners 32 on the sides thereof.

The many advantages of the present invention will become readily apparent to one skilled in the art from the following description of the several purposes for which the pick is suited. The head portion of the pick is curved backward and then forward and terminates in a knife edge so that it can be easily inserted under a metal collar used on some pharmaceutical containers and then twisted or used as a pry-bar to break the collar by causing excessive tensile stresses therein. In addition, the rectangular edges of the tines form a cutting edge to cut through a gelatin or synthetic collar often used as either a cap and seal for a liquid container or placed over a cap to hermetically seal the container. This rectangular cutting edge can also be used to cleanly remove a waxed paper seal applied to the lip of containers under a container cap by other manufacturers. By cutting through the paper seal with the knife edge, and placing the concave front face of the pick over and in contact with the neck of a container, the container can be rotated in contact with the pick to cleanly remove the seal from the neck of the container.

In most pharmaceutical containers, cotton packing is placed between the cap or seal and the contents of the container, and the mass of cotton is usually firmly compacted. Because of the compaction of the cotton and the short fibers of the inexpensive cotton generally used for this purpose, the use of tweezers or a nut pick to remove the packing results in the tearing off of small bits of cotton and is quite time consuming. If these instruments are inserted in the packing and turned, in an attempt to securely grasp the packing, it tends to slip off the penetrating portion of the instrument because of the stresses re-

sulting in the fibers. When packing is removed in small pieces, as is often the case when previously existing tools are used, the packing which remains offers limited protection during continued removal efforts and the contents of the container are often damaged.

The configuration of the tines embodied in the present invention overcomes this time consuming project and provides a pick which expedites rather than impedes immediate and complete removal of the cotton packing. With a minimum of pressure, the leading knife edge 30 of each tine is used to penetrate the packing and the pick is then rotated around its longitudinal axis A—A. Slippage of the packing from the pick during rotation is hindered by the restricted neck and any slippage in the packing is upward into the wider part of the opening 20 formed between the tines. This in turn forces the knife edge deeper into the packing and assures a more secure hold on a larger portion of the packing which facilitates its complete removal. Thus, the preferred flared open space 20 between the tines, together with the diverging outer faces 24—24 serves to force the packing onto the pick. If the packing has any tendency to slip or pull away from the pick during removal from the container, the restricted neck to the opening, together with the flared out portion of each prong at the knife edge 30 serves as a spur to prevent such slippage.

Another example of the many uses of the present invention is in its capacity to remove directions or other literature which many manufacturers place in their containers and which is often forced into the container and securely held by friction therein. The present pick, because of its curved configuration, is well suited to be inserted into a container and under the literature to apply a leverage pressure to force its removal. The pick is also well suited to firmly packing a bottom layer of cotton into prescription vials such as used for sublingual and hypodermic tablets which are of soft composition and which need extra protection from breakage when such vials are handled.

Although the preferred embodiment of the spaced tines is illustrated in FIG. 1, a number of modifications of the novel features of the invention are readily apparent to one skilled in the art. For example, the outermost edges of the respective tines could be parallel if the same configuration for the open space is maintained, and such a modification is illustrated in FIG. 4 where the breadth of the tines at C—C is greater than at B—B. In a like manner, the respective innermost faces of the tines could be

formed with substantially reversing curves oriented to form a restricted neck, such as illustrated in FIG. 5.

It should be fully understood and appreciated that the foregoing description and illustrations are to be considered as merely exemplary of the invention, and that the scope of the invention is as defined in the appended claims interpreted and construed in the light of the foregoing description and illustration.

Having thus patentably distinguished and described my invention in the manner required by the patent statutes, what I desire to secure by Letters Patent of the United States and what I claim is:

1. A pick comprising a handle, a shaft extending longitudinally from said handle, and a head portion which curves generally backward and then forward from said shaft and terminates in two spaced apart tines forming an opening therebetween, each of said two tines comprising

(a) an outer surface;

(b) an inner surface converging toward the respective inner surface of said other tine at the end of said pick opposite said handle to form a restricted neck to said opening;

(c) a curved top surface and a curved bottom surface at right angles with said outer surface and said inner surface to form rectangular corners therewith, said top surface and said bottom surface converging at the said end opposite said handle to form a knife edge thereon.

2. A pick in accordance with claim 1 wherein said outer surface of each of said tine is substantially planar and diverges outwardly relative to said other outer surface of said other tine from a juncture of said tines with said shaft.

3. A pick in accordance with claim 2 wherein each of said inner surfaces of said tines is substantially a reversing curve oriented to form a restriction to said opening at said end of said pick opposite said handle.

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