May 16, 1944. G. A. COLE 2,349,076

CURB BOX CLEANER

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Fig. 1.

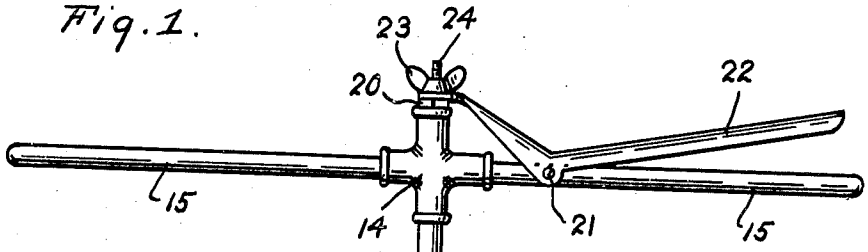
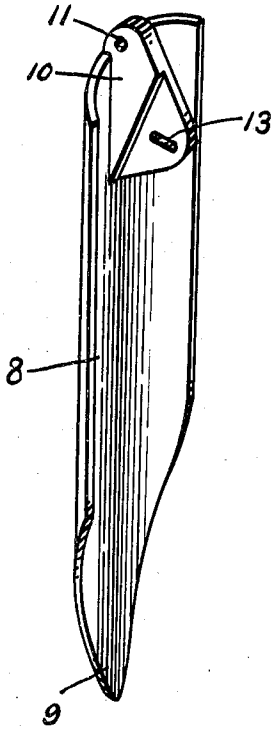


Fig. 2.



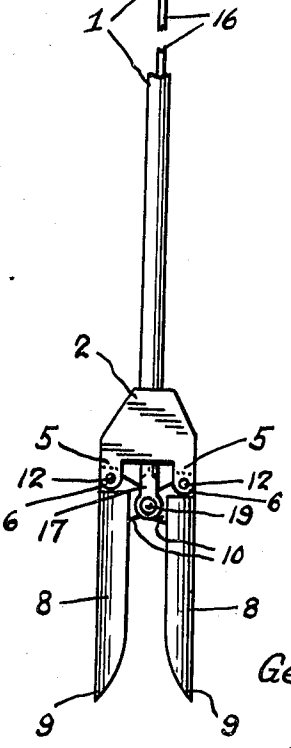
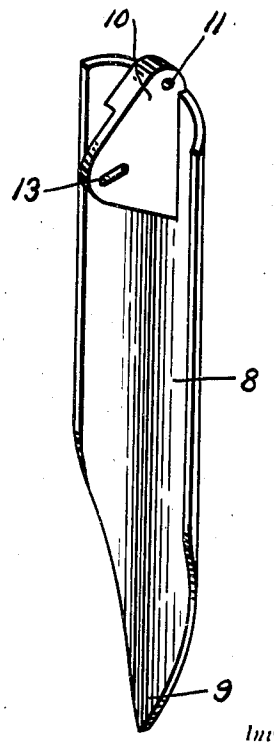


Fig. 3.



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Fig. 4.

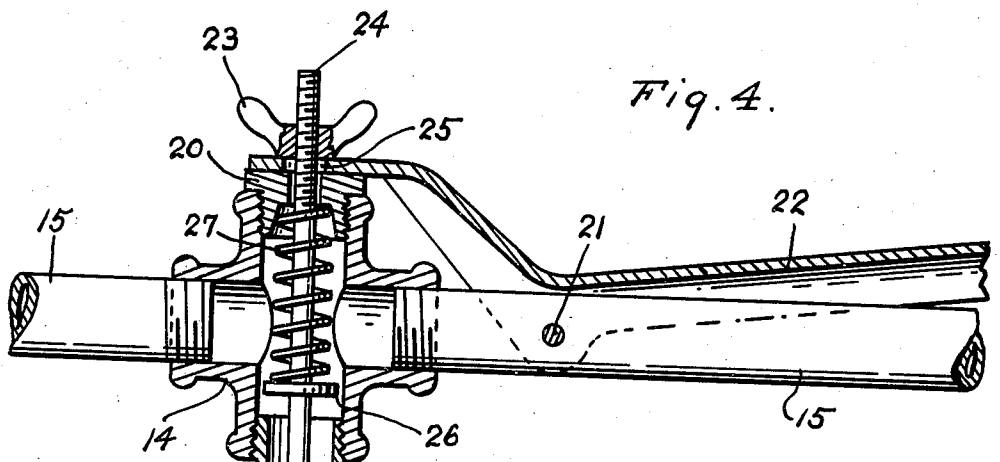
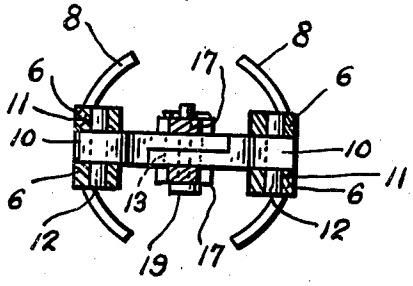


Fig. 5.



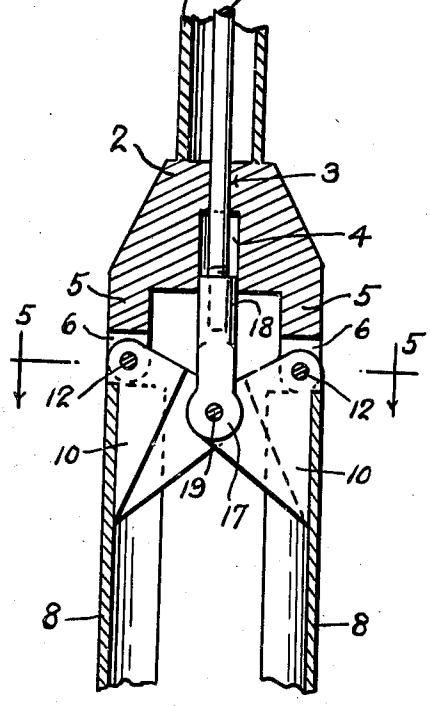
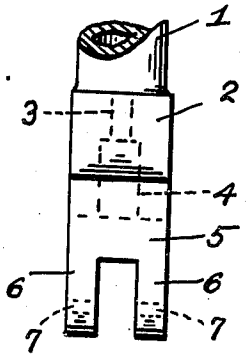


Fig. 6.



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CURB BOX CLEANER

George Arend Cole, Waynesville, Ohio

Application July 26, 1943, Serial No. 496,202

2 Claims. (Cl. 294—115)

The present invention relates to new and useful improvements in curb or valve box cleaners, and has for its primary object to provide, in a manner as hereinafter set forth, novel means whereby stones, sticks and other objects may be expeditiously removed from a crub box.

Another very important object of the invention is to provide, in a tool of the aforementioned character comprising a pair of pivotally mounted, coacting jaws, novel means for manually closing said jaws.

Still another very important object of the invention is to provide a curb box cleaning tool wherein the pivotally mounted jaws may be conveniently adjusted.

Other objects of the invention are to provide a curb or valve box cleaning tool which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, light in weight, and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in side elevation of a tool constructed in accordance with the present invention.

Figure 2 and 3 are perspective views of the jaws.

Figure 4 is a view in vertical section through the device with portions broken away.

Figure 5 is a view in horizontal section, taken substantially on the line 5—5 of Figure 4.

Figure 6 is a detail view in side elevation of the forked head.

Referring now to the drawings in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a tubular metallic shaft 1 of suitable length and diameter. Fixed as by welding on the lower end of the tubular shaft 1 is a forked metallic head 2. The head 2 has formed vertically therein a bore 3 which communicates with the tubular shaft 1, said bore comprising a counterbored lower portion 4. The legs 5 of the head 2 comprise bifurcations 6 having aligned openings 7 therein.

Hingedly mounted for swinging movement on the head 2 and suspended therefrom is a pair of coacting jaws 8 of substantially segmental cross-section. The jaws 8 include tapered lower end portions 9. Fixed on the upper portions of the jaws 8, on the inner sides thereof and projecting upwardly from said jaws are metallic brackets 10. The brackets 10 have formed in their upper portions apertures 11 which accommodate pins 12 in the apertures 7 for pivotally suspending the jaws 8 from the head 2. The inner portions of the brackets 10 overlap and have formed therein communicating slots 13, the purpose of which will be presently set forth.

Threadedly mounted on the upper end portion of the tubular shaft 1 is a four-way coupling or pipe cross 14. Tubular handles 15 are threadedly connected to the cross 14 and project in opposite directions therefrom. A rod 16 is operable in the cross 14 and the tubular shaft 1, said rod extending slidably through the bore 3 in the head 2. Mounted on the lower end portion of the rod 16 is a clevis 17, the shank 18 of which is slidably engaged in the counterbore 4. The clevis 17 straddles the lapped inner portions of the brackets 10 and is operatively connected thereto by a pin 19 which is engaged in the slots 13.

The upper end portion of the rod 16 extends slidably through a bushing 20 which is threadedly mounted in the upper portion of the cross 14. Pivotally mounted, as at 21, on one of the handles 15 is a hand lever 22. The rod 16 extends loosely through one end portion of the lever 22 and has threaded thereon a wing nut 23, thereby operatively connecting said rod to said lever for raising thereby for closing the jaws 8. The upper end portion of the rod 16 is threaded, as at 24, to accommodate the wing nut 23. An opening 25 is provided in the hand lever 22 for the rod 16.

Fixed on the rod 16 within the cross 14 is a collar 26. A coil spring 27 encircles the rod 16 and has one end engaged with the bushing 20 and its other end engaged with the collar 26 for yieldingly urging said rod downwardly for opening the jaws 8.

It is thought that the operation of the tool will be readily apparent from a consideration of the foregoing. Briefly, the jaws 8 are normally held in open position by the coil spring 27 pushing downwardly on the rod 16. Through the medium of the wing nut 23, the position of the jaws 8 when open may be conveniently and accurately adjusted as desired. Of course, the jaws 8 are lowered into the curb or valve box to be cleaned. The substantially segmental cross-sectional shape of the jaws 8 permits them to move closely adjacent to or against the walls of the box. Thus, the jaws 8 will readily pass downwardly between the walls of the curb box and a stone, for example, therein.

When the jaws 8 have been positioned on op-

posite sides of the stone or other object, the rod 16 is moved upwardly against the tension of the coil spring 27 through the medium of the handle 22, thus closing the jaws 8 on the object to be removed. The jaws 8 will firmly grip the stone or other objects which may now be readily lifted out of the curb box.

It is believed that the many advantages of a curb box cleaner constructed in accordance with the present invention will be readily understood, and although a preferred embodiment of the tool is as illustrated and described, it is to be understood that changes in the details of construction and in the combination and arrangement of parts may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

1. A tool of the character described comprising a tubular housing, a pair of coacting jaws pivotally mounted on one end of the housing, a pipe cross threadedly mounted on the other end portion of the housing, a pair of handles threadedly mounted on the cross, a bushing threadedly mounted on the cross in alignment with the tubular shaft, a rod slidable in the bushing, the cross and the tubular shaft and pivotally connected, at one end, to the jaws for actuating said jaws, a hand lever pivotally mounted on one of the handles, said lever having an opening in one end portion aligned with the bushing, the rod passing through said opening, a nut threaded on the rod and engaged with the lever for adjustably connecting the rod thereto for actuation thereby in one direction, a collar fixed on the rod within the cross, and a coil spring encircling the rod between the bushing and the collar for actuating said rod for opening the jaws.

2. A curb box cleaner comprising a tubular shaft, a pair of coacting jaws pivotally mounted on one end of said shaft, a fitting mounted on the other end of the shaft, handles carried by and projecting laterally from opposite sides of said fitting, a rod slidable in the shaft and pivotally connected to the jaws for opening and closing the same a lever pivotally mounted on one of the handles and having an inner arm operatively connected to the rod and an outer arm adjacent and movable toward said one handle for actuating said rod to swing the jaws toward each other, and a spring acting to normally spread the jaws with the inner arm of the lever engaged with the fitting and the jaws disposed in parallel relation.

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