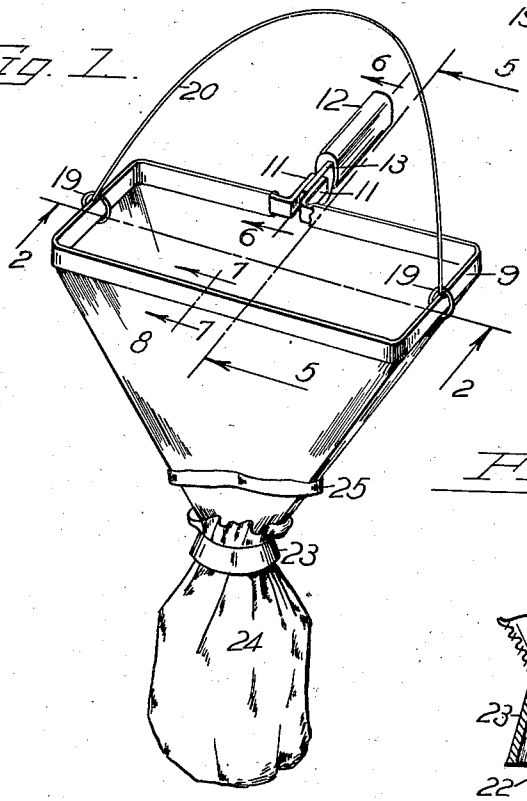
March 16, 1937. C. R. WILFLEY 2,073,914

SAMPLE SACKER

Filed May 5, 1936

Fig. 1.



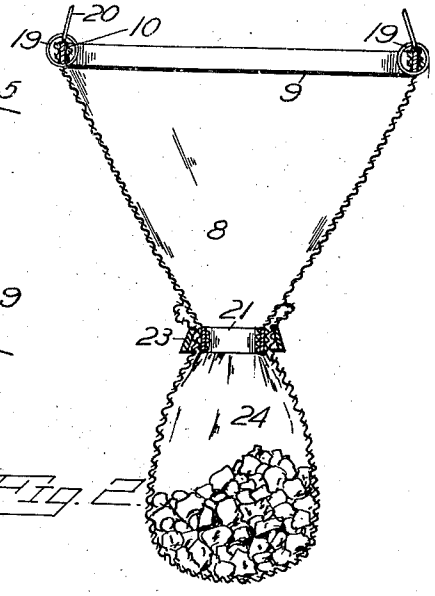


Fig. 2.

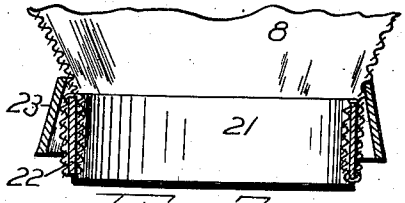


Fig. 3.

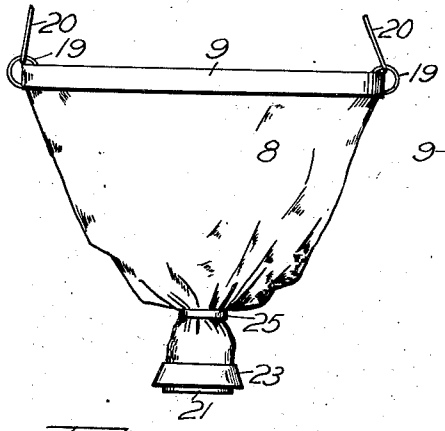


Fig. 4.

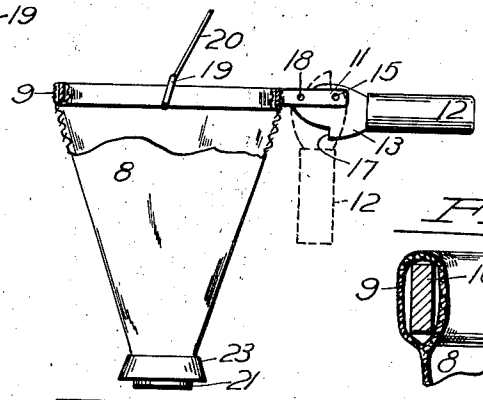


Fig. 5.

Fig. 7.

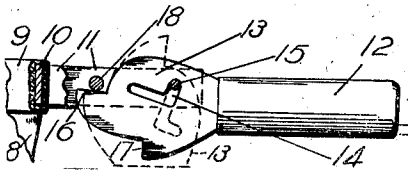


Fig. 6.

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2,073,914

SAMPLE SACKER

Clifford R. Wilfley, Denver, Colo.

Application May 5, 1936, Serial No. 78,019

5 Claims. (Cl. 226—58)

This invention relates to improvements in devices for collecting and sacking ore samples.

In mining operations, it is frequently necessary to take samples of the ore for test and this is accomplished by some experienced man breaking off small pieces of ore from the vein and collecting the same in a suitable bag; such samples are then sent to the assayer for test.

In order to obtain a sample that is representative of the average value of the ore in the exposed vein, it is evident that the samples must be taken from many parts of the vein. It is also necessary that the sample shall contain the actual chips removed from the vein and nothing else.

Since ore veins usually extend vertically or at least at an incline, it is evident that some of the samples should be taken near the bottom of the shaft or tunnel and others near the top, while still others are taken at points intermediate.

It is the object of this invention to produce a device, formed principally from canvas, of funnel shape, for use in catching the samples and directing them into a small ore bag.

It is a further object to produce a sample collector and sacker that can be held in one hand, in position to catch the chips broken off by the other hand.

Another object is to produce a sample collector and sacker, of funnel shape, having its receiving end held open by a metal frame and provided with a handle that can be adjusted to a plurality of positions so as to facilitate the holding of the collector at different elevations, by one hand while the pick is operated by the other hand.

A still further object is to produce a sample catcher and sacker that can be supported from a person's neck so as to leave both hands free to operate the pick; and

Another object is to produce an ore catcher having means for quickly and conveniently attaching a sample bag thereto and removing it therefrom.

The above and such other objects as may become apparent as the description proceeds are attained by means of a construction and an arrangement of parts that will now be described, reference for this purpose being had to the accompanying drawing in which the invention has been illustrated in its preferred embodiment, and in which

Figure 1 is a perspective view showing the invention in operative position,

Figure 2 is a section taken on line 2—2, Figure 1,

Figure 3 is a section, to a larger scale, showing with greater particularity the means for maintaining the lower end of the funnel open and for attaching a bag thereto,

Figure 4 is a side elevation of the catcher, showing the bag removed and the lower end closed by means of a band,

Figure 5 is an end view, partly in section taken on line 5—5, Figure 1, the bag being removed and the handle shown in extended position,

Figure 6 is a section taken on line 6—6, Figure 1, and shows the construction of the handle, and

Figure 7 is a section taken on line 7—7, Figure 1.

The device consists of a canvas bag 8 of rectangular funnel-shape. The upper edge is provided with a wide hem 9 in which is positioned a metal bar 10, preferably of rectangular cross section, as shown, and bent into the shape of a rectangle. The ends 11 of the bar 10 are bent outwardly at right angles and project through a hole in the hem. A handle 12 is formed in part from a flat metal member 13 provided with an L-shaped or bayonet slot 14 (see Figure 6).

A pin 15 extends through openings in the ends 11 and in through the slot 14 and forms a pivot for the handle. The flat blade 13 of the handle is provided with two lugs or projections 16 and 17 at right angles to each other.

A pin 18 is so positioned as to be engaged by the lug 16 when the parts are positioned as shown by dotted lines in Figures 1, 5 and 6, and to be engaged by lug 17 when the parts are positioned as shown by dotted lines in Figures 5 and 6.

By means of the construction shown in Figure 6 and just described, the handle can be positioned in two different positions.

The handle 12 can be made longer than shown or can have an extension secured thereto by suitable means if for any reason the catcher is to be supported at an elevation above the sampler's head.

Two rings 19 are provided at the ends of the rectangular frame 10 and serve as attaching means for a rope or cord 20 which can be passed around the neck of the sampler, who will then have both hands free.

The bag 8 tapers downwardly and terminates in a small neck having a wide hem 21 in which is positioned a metal ring 22 that serves to hold it expanded. A frusto-conical ring 23 surrounds the open neck and the smaller diameter of the opening is smaller than the outside diameter of the neck, so that it can lap the hem 21 but can-

not be removed. A sample bag **24** is telescoped over the hem **21** and its end is pulled through the ring **23**, as shown in Figures 1 and 2, and the ring **23** serves to clamp the bag in position.

It is evident from the above description that the sampler can carry the catcher and bag in one hand, by means of handle **12** while he operates the pick with the other hand. When samples are taken one side of the open end is pressed against the surface of the vein in position to catch the chips, which will fall into the open end of the funnel and thence into the bag. When the bag is full, it is removed by raising ring **23**. Another bag can then be attached.

The funnel is provided near its lower end with band **25** that can be used to close the lower end in the manner indicated in Figure 4. The catcher can now be used as an open bag in which to carry tools, sample bags and samples.

Since the device with the exception of the frame **10**, the handle, and the rigs **22** and **23**, is of canvas, it can be folded into a very compact and small bundle for transportation.

The rigid frame **10** in the mouth of the funnel permits it to be clamped between the wall and the body of the sampler, thereby leaving both his hands free.

When this device is used, the samples, as soon as they are broken from the vein, pass directly into the sample bag without first having to be transferred from another container and the sampler can therefore seal the sample bags thereby removing any opportunity for anyone to substitute or "salt" the samples.

What I claim and desire to secure by Letters Patent is:

1. An ore sample sacker comprising in combination, a collapsible funnel-shaped element, the large end having a hem, a frame in the hem, the small end having a hem, a ring in the last mentioned hem, the frame and ring serving to hold their respective ends open, a handle secured to the frame to move about a pivot parallel with the plane of the frame, means for latching the handle in a plurality of pivotal positions, and means for removably securing a bag to the open end.

2. An ore sample sacker comprising a funnel-shaped element of fabric, an open frame attached to the large end thereof to hold it in open position, a pair of lugs extending outwardly from the frame, a handle having a portion extending between the lugs, a pivot pin extending through the lugs and handle portion, means for latching the handle relative to the lugs, in a plurality of positions, and means for removably securing a bag to the small end of the element.

3. An ore-catcher comprising a funnel-shaped element of fabric, a rectangular frame positioned to hold the large end of the element open, the ends of the frame projecting outwardly, a handle having an extension positioned between the ends of the frame, the extension having an L-shaped slot, a pin passing through the slot and through the ends of the frame to form a pivot, a second pin passing through the space between the ends, the flat extension having a plurality of outwardly projecting teeth for engaging the last named pin, and means for removably attaching a bag to the small end of the element.

4. An ore-catcher comprising a funnel-shaped element of fabric, a rectangular frame positioned to hold the large end of the element open, the ends of the frame projecting outwardly, a handle having an extension positioned between the ends of the frame, the extension having an L-shaped slot, a pin passing through the slot and through the ends of the frame to form a pivot, a second pin passing through the space between the ends, the flat extension having a plurality of outwardly projecting teeth for engaging the last named pin, means for holding the small end open, and means for closing the small end above the opening means.

5. A device of the character described comprising, a collapsible funnel-shaped element, a frame connected with the large end of the element to hold it open, a ring connected with the small end of the element to hold it open, a handle pivoted to the frame, means for latching the pivoted handle in a selected position, and means for removably securing a bag to the small end of the element.

CLIFFORD R. WILFLEY.