March 1, 1960 J. B. CRAFT ET AL 2,926,786

PORTABLE GOLD CONCENTRATING DEVICE

Filed June 17, 1957

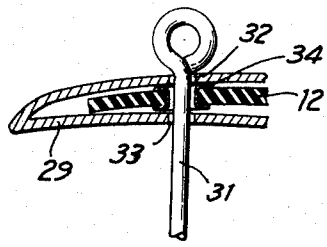


Fig. 5.

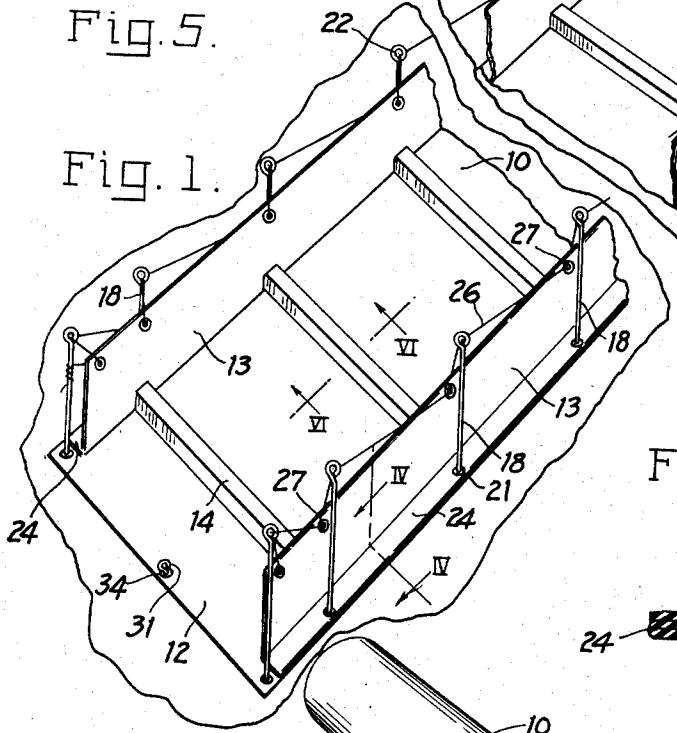


Fig. 1.

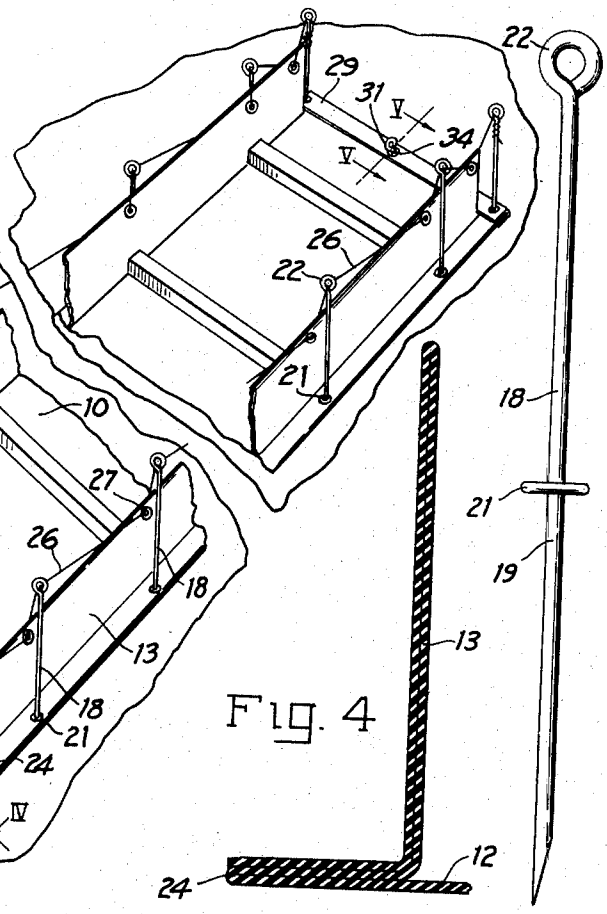


Fig. 4

Fig. 3

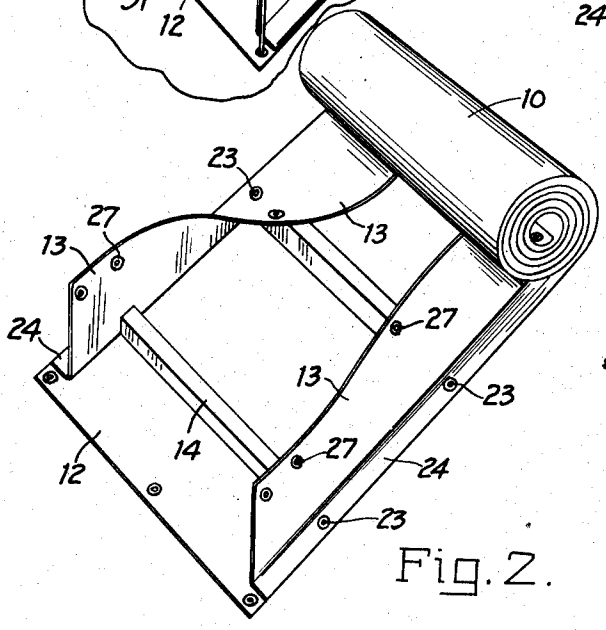
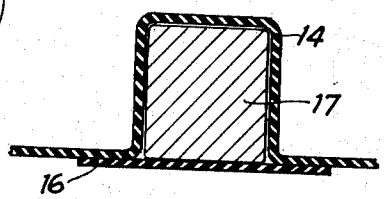


Fig. 2.

Fig. 6.



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United States Patent Office 2,926,786 Patented Mar. 1, 1960

2,926,786

PORTABLE GOLD CONCENTRATING DEVICE

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Application June 17, 1957, Serial No. 665,998

3 Claims. (Cl. 209—458)

This invention relates to a device and method for obtaining gold in arid areas.

In many relatively arid desert areas, rain is infrequent, but, when rain does occur, it is of deluge proportions. These relatively desert areas also are sources of gold which is found in small amounts in the normally dry stream beds or arroyos. The gold is generally in small concentrations which can not be worked by conventional methods.

An object of this invention is to provide a device which makes use of such naturally occurring infrequent deluges to concentrate gold in stream beds to useful amounts.

A further object of this invention is to provide a device which can be staked in place in an arroyo during dry weather when there is little or no flow of water and which can be left in place until there is sufficient rain to cause flow of water therethrough to trap and concentrate gold therein.

The above and other objects and features of this invention will be apparent to those skilled in the art to which this invention pertains, from the following detailed description, and the drawing, in which:

Figure 1 is a perspective view showing a gold concentrating device constructed in accordance with an embodiment of this invention, the device being shown in place in a stream bed;

Fig. 2 is a perspective view of the device in partly rolled condition for ready transportation thereof;

Fig. 3 is an enlarged view of one of a plurality of stakes used in holding the device in place in the stream bed;

Fig. 4 is a view in section taken on the line IV—IV in Fig. 1;

Fig. 5 is a view in section taken on the line V—V in Fig. 1; and

Fig. 6 is a view in section taken on the line VI—VI in Fig. 1.

In the following detailed description, and the drawing, like reference characters indicate like parts.

As shown in Fig. 1, a gold mining device constructed in accordance with an embodiment of this invention is indicated at **10**. The device includes a main or bottom panel **12** and side wall panels **13**. The bottom and side wall panels may be formed of rubber impregnated canvas, or other strong, durable, sheet material which is sufficiently flexible to accommodate irregularities in a stream bed. As indicated in Fig. 4, the wall panels **13** may be integrally formed with the bottom **12**. The material may be folded as indicated in Fig. 4. The rubber of the material may be vulcanized or otherwise sealed to hold the layers thereof together adhesively as indicated.

As indicated in Figs. 1 and 6, a plurality of transverse pockets **14** are formed in the bottom panel **12**. Each of the pockets extends upwardly from the bottom panel and is closed by a strip of material **16** which may be secured to the underside of the bottom panel **12**. Each of the pockets **14** holds a transverse bar **17** of metal or the like which holds the pocket portion in the upstanding position shown in the drawing. These pockets form riffles for

catching gold carried by water passing through the device. As shown, the riffle or pocket members span the side walls of the device.

The walls **13** are supported by stake members **18**. Each of the stake members, as indicated in Fig. 3, includes a shank **19**, on which a ring **21** is mounted. An eye **22** is formed at the upper end of each of the stakes. As indicated in Fig. 2, a plurality of grommets **23** are formed in the bottom of the device in flanges **24** which extend outwardly beyond the walls **13**. One of the stakes is received in each of these grommets to stake down the edges of the bottom of the device. As shown in Fig. 1, a line **26** extends from the eyes of the stakes to grommets **27** mounted in the upper edges of the walls **13**. The line **26** serves to hold the walls in upright position.

The upstream edge of the device is reinforced by a channel-shaped metal member **29** which fits around the upstream edge of the device. A short stake **31** extends through openings **32** and **33** in the flanges of the channel-shaped member **29** and through a grommet **34** in the upstream edge of the bottom panel **12** to hold the upstream edge in place in a stream bed.

When the device is not in use, the stakes may be removed, the walls may be folded inwardly and the entire device may be rolled up as indicated in Fig. 2 for ready transportation.

When the device is to be used, it is placed in a normally substantially dry stream bed or arroyo with the axis of the device following the course of the stream bed as closely as possible. The edges of the device are staked down and the device is left in place until after one of the infrequent rains which occur in such desert country. When the rain occurs, stream water passes rapidly through the device in a turbulent manner and gold carried by the stream is caught and held by the riffle pocket members. When the rain is over and the bed of the stream again becomes dry, the gold accumulated in the riffles may be removed. The device may be left in place or may be removed during the dry season.

The devices illustrated in the drawing and described above, is subject to structural modification without departing from the spirit or scope of the appended claims.

Having described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A portable gold concentrating device which comprises an elongated flexible sheet bottom panel, elongated flexible side wall members attached to the bottom panel along lengthwise edges of the bottom panel, a plurality of upstanding riffle members mounted on the bottom panel and extending transversely of and spanning the wall members, flanges on the bottom panel extending outwardly beyond the wall members, means on the wall members for supporting the wall members in an upright position extending upwardly from the flanges on the bottom panel, and means on said flanges for attaching the device with the bottom panel on the bottom of a stream bed with the lengthwise axis thereof extending along the stream bed, whereby, when water flows along the stream bed, gold values in the water are concentrated at the riffles, the side wall members, when released, folding against the bottom panel, the bottom panel and the side wall members being adapted to form a roll.

2. A portable gold concentrating device which comprises an elongated flexible sheet bottom panel, elongated flexible side wall members attached to the bottom panel along lengthwise edges of the bottom panel, a plurality of upstanding riffle members mounted on the bottom panel and extending transversely of and spanning the wall members, flanges on the bottom panel extending outwardly beyond the wall members, a plurality of spaced grommets in the flanges, a plurality of spaced grommets in the side wall members spaced from the bottom panel, stakes

extending through the flange grommets for mounting the device with the bottom panel on the bottom of a stream bed with the lengthwise axis thereof extending along the stream bed, each of said stakes having an elongated shank received in one of the flange grommets, a ring on the shank engaging said one of the flange grommets, and an eye at the upper end thereof above the side wall members and means connecting the wall grommets to the eyes of the stakes to hold the wall members in an upright position extending upwardly from the lengthwise edges of the bottom panel, whereby, when water flows along the stream bed, gold values in the water are concentrated at the riffles, the side wall members, when released, folding against the bottom panel, the bottom panel and the side wall members being adapted to form a roll.

3. A gold concentrating device which comprises an elongated flexible sheet bottom panel, elongated side wall members attached to the bottom panel along lengthwise edges of the bottom panel, one end of the bottom panel being an upstream end, a plurality of upstanding riffle members mounted on the bottom panel and extending transversely of and spanning the wall members, flanges on the bottom panel extending outwardly beyond the wall members, means on said flanges for attaching the device with the bottom panel in a stream bed with the lengthwise axis thereof extending along the stream bed with the edge of the upstream end of the bottom panel being exposed, means on the wall members for supporting the wall members in an upright position extending upwardly from the lengthwise edges of the bottom panel, a channel-shaped member of rigid durable material overlying and embracing the upstream edge, there being aligned openings in the flanges of the channel-shaped member and in the upstream edge portion of the bottom panel, and a stake extending through said aligned openings into the stream bed to hold the channel-shaped member and the upstream edge of the bottom panel in position in the stream bed, whereby, when water flows along the stream bed, gold values in the water are concentrated at the riffles, the side wall members, when released, folding against the bottom panel, the bottom panel and the side wall members being adapted to form a roll.

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