Sept. 18, 1951 H. A. JOHNSON 2,568,194

CARBON ROD JACK

Filed May 20, 1947

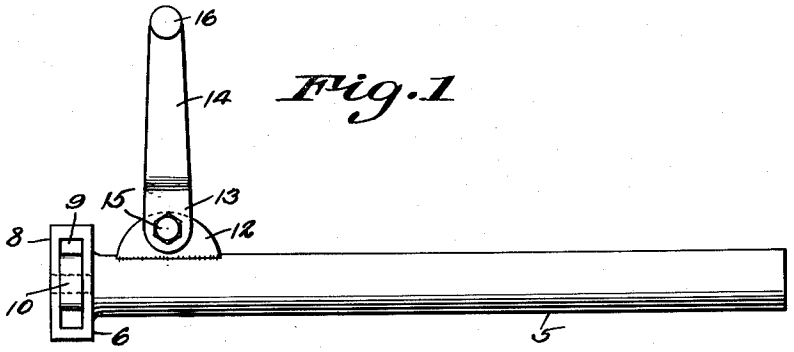


Fig. 1.

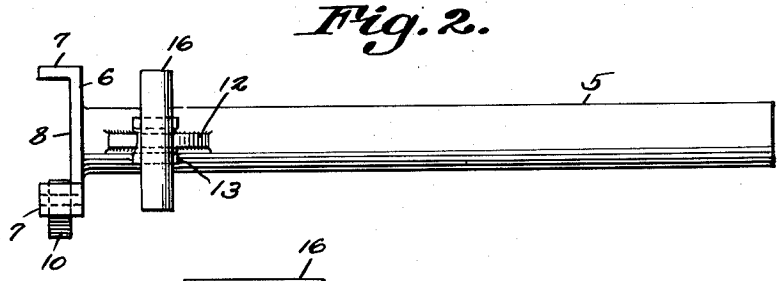


Fig. 2.

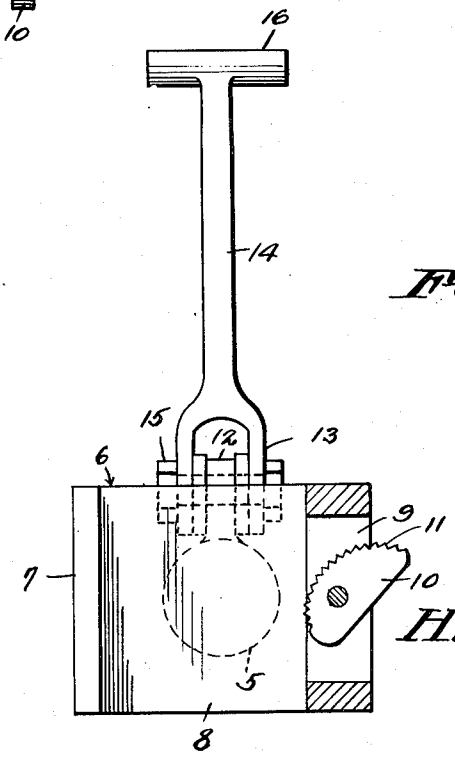


Fig. 3.

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Patented Sept. 18, 1951

2,568,194

UNITED STATES PATENT OFFICE

2,568,194

CARBON ROD JACK

Harry A. Johnson, Vancouver, Wash.

Application May 20, 1947, Serial No. 749,373

1 Claim. (Cl. 294—102)

1

This invention relates to a jack or tool, designed for raising and holding carbon rods, used in aluminum pots, in which aluminum is being melted out of the aluminum pots in which they are submerged for periods, to prevent overheating of the carbon rods.

An important object of the invention is to provide a jack of this character including a head formed with a groove of a width and depth equal to the width and thickness of the usual copper carbon rod, to the end that the jack or tool may be readily positioned over the carbon rod, and connected thereto, so that the carbon rods may be elevated.

Another object of the invention is to provide a carbon rod clamping means held within the head and so arranged that the carbon rod will be securely held within the head while the head is being manipulated.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing

Figure 1 is a side elevational view of a carbon jack or tool, constructed in accordance with the invention.

Figure 2 is a plan view thereof.

Figure 3 is an enlarged front elevational view of the jack, looking into the head thereof, a portion of the head being shown in section, illustrating the segmental jaw used in gripping the carbon over which the head is positioned.

Referring to the drawing in detail, the device comprises a body portion 5 which constitutes the handle of the device, the body portion having the head 6 formed at one end thereof, the head 6 being provided with parallel flanges 7 that extend at right angles to the main portion 8 of the head.

As shown, the flange 7 at one side of the head is substantially wide and is formed with a cutout portion 9 in which the pivoted segment 10 is disposed, the pivoted segment being eccentrically mounted, so that the segment will act as a jaw in the form of a cam, the inner edge thereof being provided with teeth 11.

Welded to the upper side of the body portion 5, is a rib 12 which is formed with an opening adapted to align with openings of the bifurcated end 13 of the handle 14, to receive the pivot bolt 15.

A cross handle 16 is formed integral with the

2

free end of the handle 14 and affords means whereby connection may be had between the usual J-bolts of a carbon rod, disposed at the upper end of the carbon rod, not shown, and which extend laterally from the ends of the carbon rods used in aluminum melting pots, thereby holding the jack in place, while the carbon rod is being wedged within the head 7 of the device.

By positioning the head over the upper end of the carbon rod which is extended above the top of the aluminum pot and then directing pressure at the outer end of the body portion 5 causing the body portion to pivot, it will be seen that the carbon rod will be gripped by the teeth 11 of the jaw or pivoted segment 10, securely holding the carbon rod within the head. With this device, the carbon rod is not only elevated, but supported in its elevated position above the aluminum pot (not shown), a period of time to allow the carbon rod to cool and prevent overheating of the carbon rod, the weight of the carbon rod acting to cause the jaw to securely bite into the edge of the carbon rod, preventing slippage of the carbon rod within the head.

What is claimed is:

A carbon lifting and holding device, comprising a body including a main section, flanges extending forwardly from the side edges of the main section disposed in parallel spaced relation with each other, one of said flanges being substantially wide and formed with an opening extending therethrough, a vertically swinging pivoted segment eccentrically mounted within the opening adapted to swing inwardly beyond the inner surface of said substantially wide flange gripping a length of carbon over which the device is positioned, teeth on the pivoted segment adapted to bite into the carbon positioned between said flanges holding said carbon against slipping from the device, a handle extending rearwardly from the body, and a pivoted handle mounted on the first mentioned handle by means of which the device is held in the hand of the operator.

HARRY A. JOHNSON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
848,911	Krepp	Apr. 2, 1907
1,064,073	Hooker	June 10, 1913
1,586,056	Walsh	May 25, 1926
1,698,498	Harding	Jan. 8, 1929
2,060,214	Hitchens	Nov. 10, 1936
2,080,673	Roemer	May 18, 1937