J. A. TALBOT.

CASING COUPLING.

APPLICATION FILED DEC. 11, 1913.

1,128,634. Patented Feb. 16, 1915.

Fig. 1

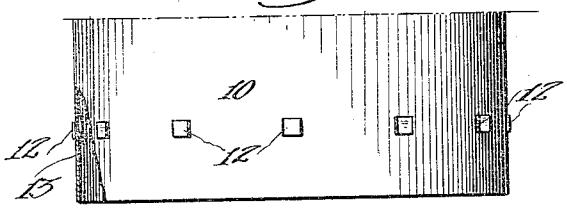


Fig. 3

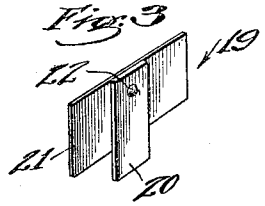


Fig. 2

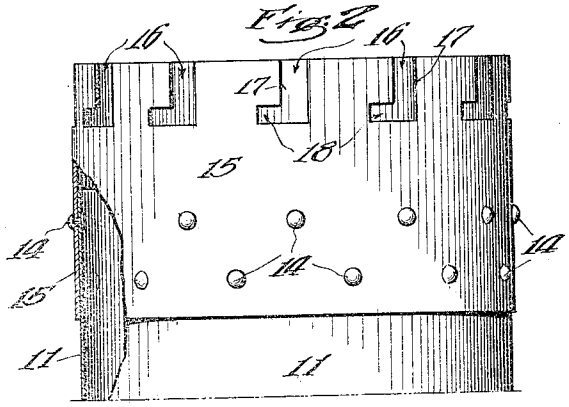


Fig. 6

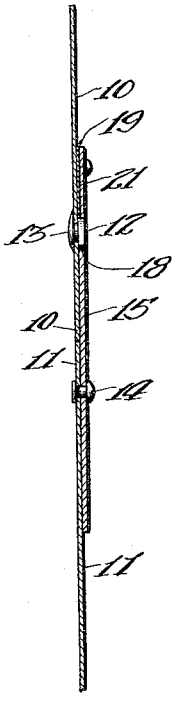


Fig. 4

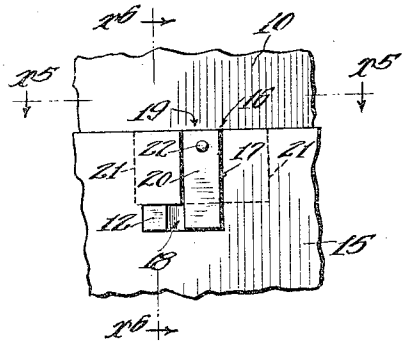
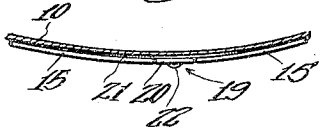


Fig. 5



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES A. TALBOT, OF SAN FRANCISCO, CALIFORNIA.

CASING-COUPLING.

1,128,634. Specification of Letters Patent. Patented Feb. 16, 1915.

Application filed December 11, 1913. Serial No. 806,107.

To all whom it may concern:

Be it known that I, JAMES A. TALBOT, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Casing-Coupling, of which the following is a specification.

My invention relates to casing couplings, especially to those used to fasten the different sections of casing used in the rotary system of drilling employed in producing oil wells, and the like.

The object of my invention is to produce a coupling which will be relatively cheap to construct, which will hold the sections of casing securely together under all conditions met with in rotary drilling, and which can be readily and quickly disconnected whenever it is desired to withdraw the sections of casing.

Other objects and advantages will be obvious from the following specification.

In the drawings which are for illustrative purposes only: Figure 1 is an elevation, partly in section, of the lower end of a section of casing. Fig. 2 is an elevation, partly in section, of the upper end of a section of casing which is to be joined to the casing shown in Fig. 1. Fig. 3 is a perspective view of a locking slip. Fig. 4 is an elevation of a portion of the casings in their connected position with the locking slip in place. Fig. 5 is a section on the line x^5—x^5 of Fig. 4. Fig. 6 is a section on the line x^6—x^6 of Fig. 4.

In these drawings, 10 is the lower end of one section of casing, and 11 is the upper end of another section of casing. A series of square head rivets 12 are secured equally distant about the end 10, the square heads being on the outer side of the casing and the rivets 12 being secured by a round or conical head as shown at 13. These rivets are carefully placed so that one side of the square head is vertical. Secured by means of rivets 14 to the end 11 is a coupling 15 which has a plurality of openings 16 formed therein, these openings consisting of a vertical slot 17 and a horizontal slot 18, the slots being slightly wider than the square heads of the rivets and being spaced the same distance apart as the heads. A series of locking slips 19 are provided, these slips consisting of a thick vertical member 20 and a thin horizontal member 21 secured together by a rivet 22.

In any system of rotary drilling it is necessary to frequently add new sections of casing and to connect and disconnect all of the sections of casing whenever it is desired to withdraw the casing from the well for any purpose, such as to renew the bit. My invention is particularly applicable to this purpose in that it provides a secure, cheap, and readily disconnected means for such sections of casing.

The various sections of casing, being equipped as above described, are connected by dropping the lower end 10 of one casing into the coupling 15 which is secured on the upper end 11 of another section of casing. The square heads of the rivets 12 pass downwardly through the vertical slot 17 and the casing is then slightly rotated to throw these heads into the horizontal slot 18. The locking slips are then dropped in place, the thin horizontal members 21 sliding down between the end 10 and the coupling 15, and the vertical members 20 fitting loosely in the slot 17. It is evident that with the parts shown in relation as in Fig. 4, that it is impossible for the heads to turn sufficiently to be released from the slots 18 unless the slips 19 are removed. It is also evident as the slips are securely held by the horizontal members 21 that they will stay in place until removed by the operator.

What I claim is:—

In combination, a casing having a plurality of pins projecting outwardly therefrom adjacent the lower end thereof, a coupling secured to the upper end of another casing adapted to receive the lower end of said first named casing, said coupling having a plurality of slots each consisting of a vertical portion terminating in a horizontal portion each adapted to receive one of said pins, and a series of removable locking slips for said pins each slip being independent of the other slips and consisting of a thin horizontal portion adapted to enter between

said coupling and the lower end of said first named casing, and an extension on said slip adapted to enter the vertical portion of its associated slot, each of said slips being freely removable from said casing.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this 2nd day of December, 1913.

JAMES A. TALBOT.

In presence of—
F. B. KINSMAN,
HARRY C. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."