A. J. ABERNATHY.

PLATE PULLER.

APPLICATION FILED SEPT. 2, 1919.

1,400,783. Patented Dec. 20, 1921.

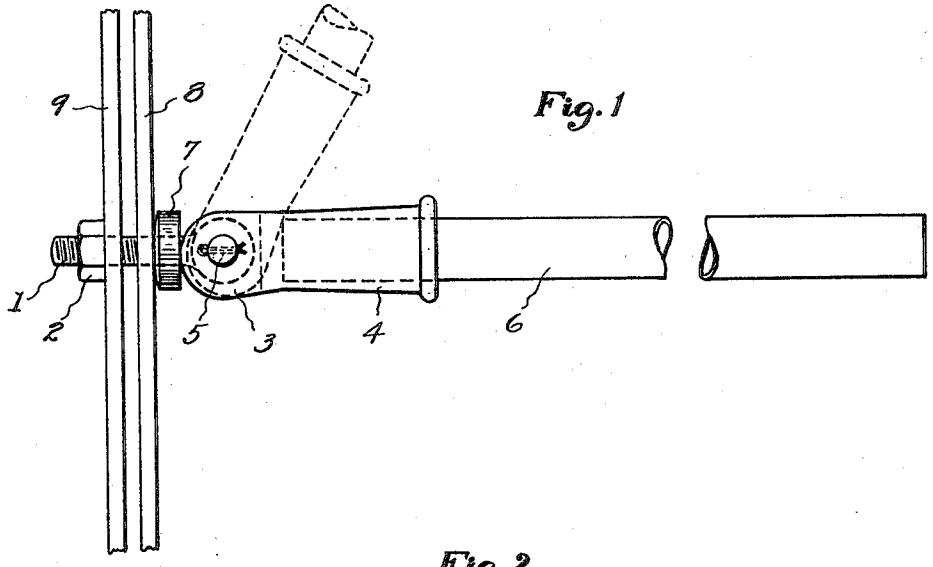


Fig. 1

Fig. 2

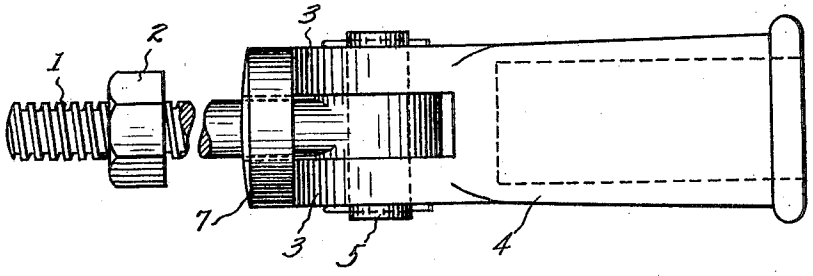
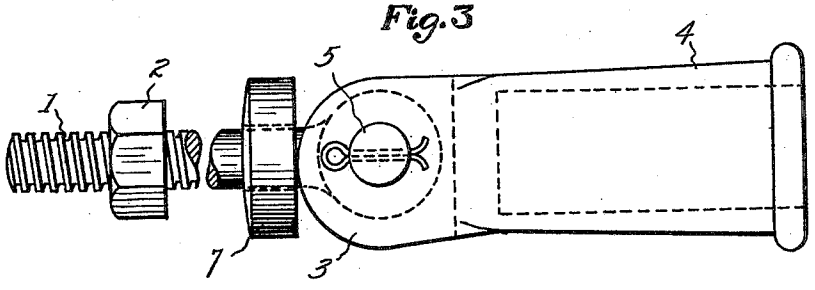


Fig. 3



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PLATE-PULLER.

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To all whom it may concern:

Be it known that I, ALBERT J. ABERNATHY, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a device, Plate-Puller to be Used for Pulling Together the Plates on Steel Ships and Similar Steel Construction.

This invention relates to new and useful improvements in plate tighteners and more particularly to plate tighteners employed in ship building construction.

The object of this improvement is to provide a plate tightener which embodies a simplified form of construction, wherein its actuating parts are susceptible to excessive strain without impairing its rigidity.

A further object resides in the applicability of the device to speedily perform the functions by manual application without laborious effort on the part of the operator.

Other objects will be more clearly pointed out in the following specification, illustrated in the accompanying drawings, and finally pointed out in the appended claim.

In the drawings—

Figure 1 is a side elevation of the device, showing its application to two ship plates preparatory to being urged together.

Fig. 2 is a plan view of the same.

Fig. 3 is an elevation similar to Fig. 1, showing the relative relation of the eccentric action from the pivot point when in its extended position.

Referring more particularly to the drawings, wherein like reference numerals indicate like parts in all of the figures, the numeral 1 represents a threaded bolt for the reception of the nut 2, said bolt having a head with a transversely disposed aperture therethrough.

The head of the bolt is inserted between the bifurcated ends 3 of a shank 4, and is pivotally held therebetween by pin 5 that extends through the aperture of the head and through the apertures of the bifurcated end of the shank. The aperture in the shank being offset from the center to form an eccentric mounting for the bolt.

I preferably form the rear end of the shank with a hollow cavity for the reception of a lever arm 6.

In operation a loosely disposed washer 7 is preferably placed over the bolt in contact with the end of the bifurcated shank 4, and the lever 6 is tilted upwardly to the position shown by dotted lines in Fig. 1. The bolt is thence extended through the alined holes of the plates, 8 and 9, to be tightened, and the nut 2 is screwed up tightly, urging the plates in abutment between the nut and washer. After sufficient pressure has been applied in this manner the lever 6 is urged downwardly, forcing the bifurcated end 3 of the shank against the washer, thus compressing the plates together by the application of the eccentric, when the lever has been brought to a horizontal position, as shown in Fig. 3.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent, is:

A plate tightener of the class described comprising a shank provided at one end with a bifurcated head portion having a circularly rounded end surface and at its opposite end having a socket therein, an actuating lever applied to said socket, a screw threaded bolt having its head pivotally mounted betwen said bifurcation eccentrically with respect to said rounded surface, said bolt being insertible through alined holes in plates to be tightened together; a nut adjustable on said bolt after insertion for holding the outer end thereof against egress from said plates and whereby when said lever is actuated the eccentric action of said head will urge said plates together.

ALBERT J. ABERNATHY.