

A. Sims,

Mechanical Movement.

N^o 66527.

Patented July 9, 1867.

Fig. 2.

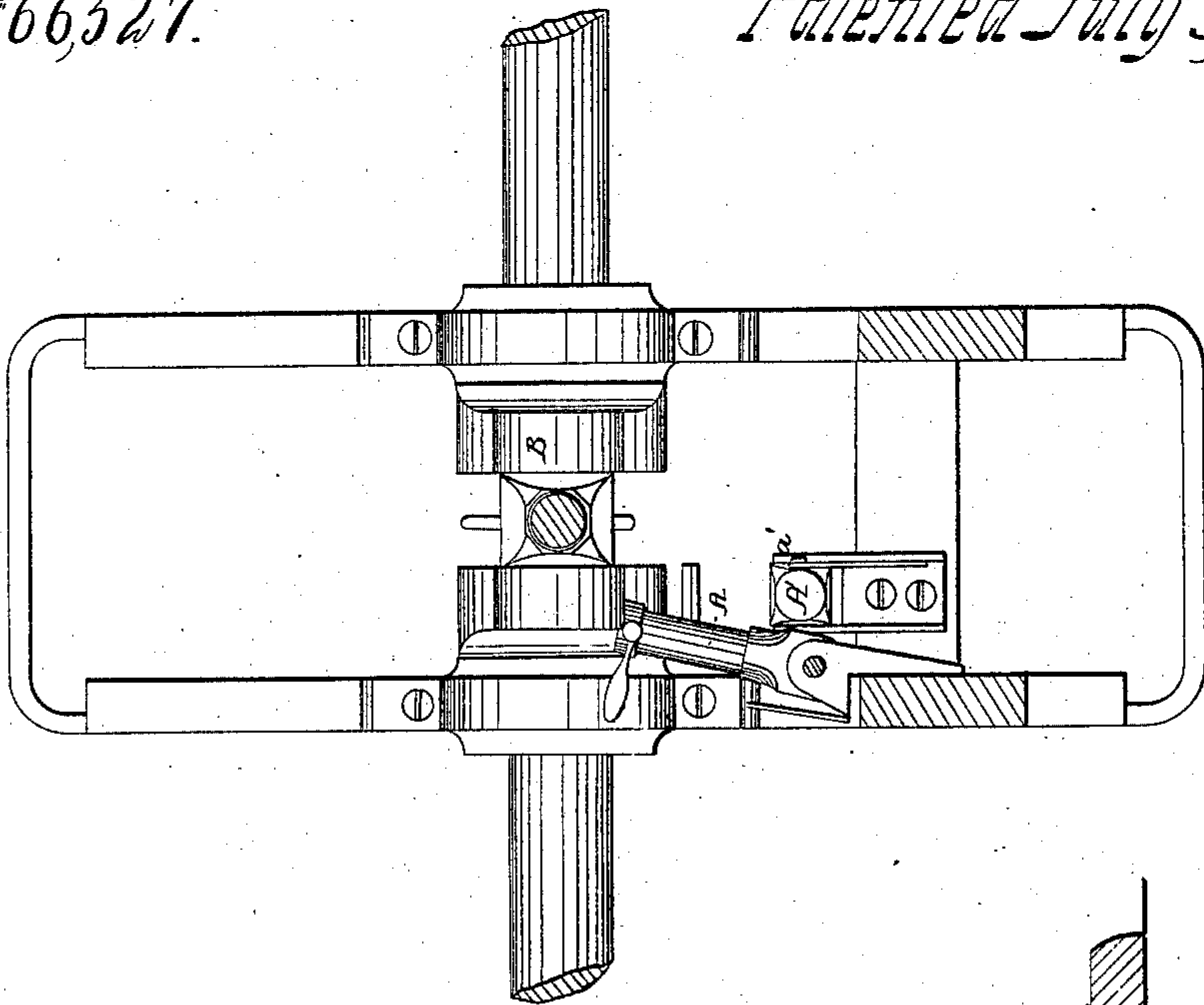
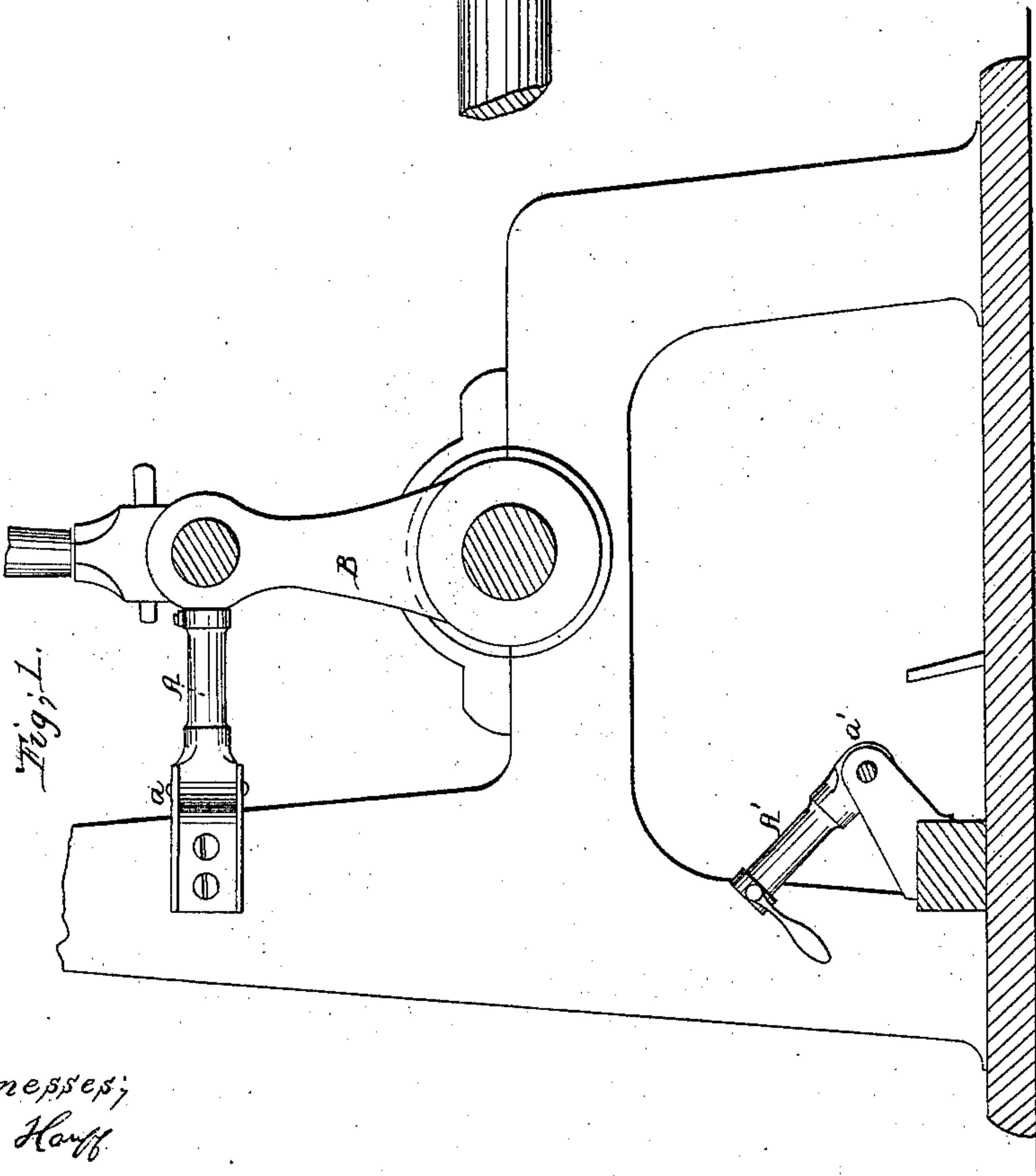


Fig. 1.



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ALFRED SIMS, OF NEW YORK, N. Y.

Letters Patent No. 66,527, dated July 9, 1867.

IMPROVEMENT IN STARTING ENGINES AND OTHER MACHINERY OFF THEIR CENTRES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALFRED SIMS, of the city, county, and State of New York, have invented a new and useful Improvement in Starting Engines off their Centres; and I do hereby declare that the following is a full, clear, and exact description thereof, which enables those skilled in the art to fully understand and use the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a sectional side elevation of this invention.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention consists in the arrangement of a hydraulic lever, screw, or other suitable press, hung on a pivot, hinge, or swivel, or connected to a slide or other equivalent mechanism, in combination with the crank of a steam engine, in such a manner that in case said crank stops on one of its dead-centres the press can be readily swung or moved in working position, and by working said press the engine can be started off its centre with little trouble or loss of time.

With large engines, such as marine engines, it happens not unfrequently that the crank stops on one of its dead-centres, and much time and labor are required to move the same from this position by means of levers, hoisting tackles, and other devices, which have to be put in working position when they are required, and taken away when not needed.

All difficulty, danger, and loss of time arising from this source are avoided by the arrangement of two presses, A A', which may be hydraulic presses, or the operation of which may be made to depend upon levers, screws, or any other suitable mechanism of sufficient power for the occasion. These presses are hung on pivots a a', so that they can be swung out to the position occupied by the press A or back to the position occupied by the press A'; or, instead of hanging them on pivots, they might be connected to a swivel, hinge, or slide, or to any other suitable mechanism, allowing them to be moved out of the way of the crank, or back into their working position, with ease and facility. The position of the presses A A' is so selected that the plunger or follower of one of them can be brought to bear on the crank B whenever the same stops on one of its dead-centres, and by setting the press in motion the crank can be readily forced off its centre, and the engine started without loss of time.

When the presses are not required they are swung or moved out of the way of the crank, but they are always at hand; and whenever one of them is required it can be readily brought in working position and operated by one man, and the engine can be started off its centres without trouble.

By these means not only much time and labor are saved, but in many cases, by the use of my presses, much danger to the safety of a steam vessel may be avoided, and a vessel may be saved from destruction if the engineer is enabled to start his engine off the centres almost instantaneously, when a delay in starting the engine would be fatal.

What I claim as new, and desire to secure by Letters Patent, is—

The presses A A', attached to the frame of a steam engine, or to any part in proximity to said engine, by pivots, swivels, hinges, or by movable slides, or other equivalent devices, to operate in combination with the crank B, substantially as and for the purpose described.

ALFRED SIMS.

Witnesses:

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W. HAUFF.