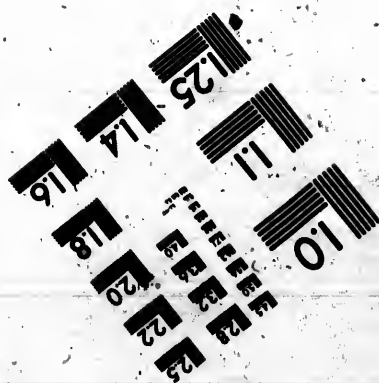
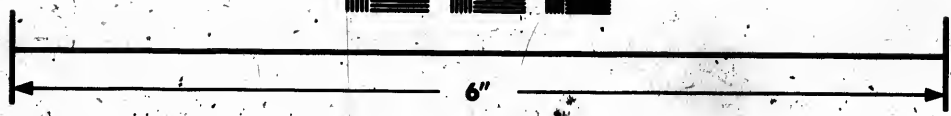
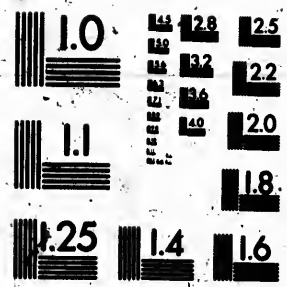


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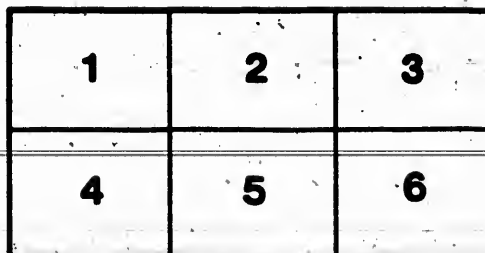
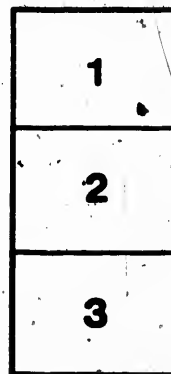
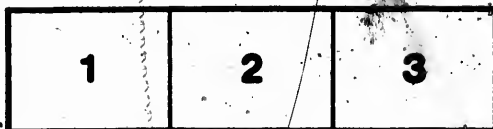
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PORTEOUS' Patent Lock-up "Pop" Safety Valve

For Locomotive, Steamboat and Stationary Boilers.

Manufactured by
ROBERT MITCHELL & CO.
MONTREAL.



Patented
2nd April, 1884.

This represents one of the best and most reliable Safety Valves in the market, and are made in every respect according to the requirements of the Steamboat Inspectors Acts and Rules. It never fails to open at the pressure to which it is adjusted, and prevents any accumulation of pressure, greater than that which it is set to guard against. It will not differ more than two pounds while opening and shutting. These valves are all tested under steam, and are correctly and plainly marked to the required pressure at which the valve is wanted to pop.

B—Is the regulating screw to regulate the spring to any pressure required, and also in the event of the spring breaking, it can be screwed down and thus close the valve *G*, until steam is off, when a new spring can be inserted, thus preventing the trouble of removing the valve from its connections. When a change in the load of the valve is desired, it is effected by raising or lowering the regulating screw *B*. To take the valve apart, remove the lever *N* and cap *A* and relieve the spring *D*, by raising the regulating screw *B*. The loose ring *J* is for regulating the pop. At a high pressure, by raising the ring, it reduces the lift of the valve, and at low pressure, by screwing the ring down, will raise the valve higher.

CAUTION.

When raising steam for the first time after attaching the safety valve, be sure and raise the valve from its seat by means of the lever *N*, and let the steam blow through freely for a short time, so as to free the seat from chips and scales, that may have accumulated in the pipe and boiler. If the above precaution is neglected, and the valve should leak, it can be easily reground by taking apart as directed.

In ordering Lock-up safety valves state area of Grate Bars in boiler.

1 ft. long x 1 ft. 0 in. wide,	requires	1 inch	Lock-up	Safety	Valve.
2 ft. " x 1 ft. 6 in. "	"	1 1/2 inch	"	"	"
2 ft. " x 2 ft. 0 in. "	"	1 3/4 inch	"	"	"
2 ft. " x 3 ft. 0 in. "	"	2 inch	"	"	"
4 ft. " x 3 ft. 0 in. "	"	2 1/2 inch	"	"	"
4 ft. " x 3 ft. 6 in. "	"	3 inch	"	"	"
5 ft. " x 4 ft. 0 in. "	"	3 1/2 inch	"	"	"
5 ft. " x 5 ft. 0 in. "	"	4 inch	"	"	"

For any other larger area of grate bars add 1/2 inch per square foot of bars.





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