

coated silk or other fabric to be soft and pliable in its nature, they add a small quantity of animal oil to the solution. The proportions the patentees use for coating silk are 30 parts of the xyloidine dissolved in *about* 300 parts by weight of ether, with 100 parts of spirits of wine, with which is mixed from 75 to 100 parts of vegetable oils. This solution is allowed to evaporate in a still until it arrives at such a density that it will only just flow evenly over a glass plate, so as finally to leave a substantial film behind it.

If the patentees can make some light and inexpensive fabric water-proof, and at the same time soft and pliable, it would be extensively used by surgeons. Oiled silk is expensive, and the oiled calico and gutta percha tissue, sometimes used in its stead, lack the softness and pliability desired. The article we have suggested is greatly desired in our large hospitals.

For the Journal of the Franklin Institute.

*Particulars of the Steamer Peruano.*

Hull built by J. Westervelt & Sons. Machinery by Morgan Iron Works, New York. Owners, Chas. A. Denion & Os.

**HULL.**—

Length on deck,	180 feet.	
Breadth of beam (molded),	29 "	3 inches.
Frames—molded, 12 ins.—sided $7\frac{1}{2}$ ins.—apart from centres, 30 ins.; strapped with diagonal and double laid braces, $4\frac{1}{2} \times \frac{3}{8}$ in.		
Keel—13 ins. deep.		
Bulkheads,	Three.	
Depth of hold, to spar deck,	11 "	
Length of engine and boiler room,	65 "	
Draft, forward and aft,	7 "	
Tonnage,	560.	
Area of immersed section at load draft of 7 feet, 170 sq. ft.		
Masts, two—Rig, schooner.		

**ENGINE.**—Vertical beam.

Diameter of cylinder,	44 inches.
Length of stroke,	11 feet.
Maximum pressure of steam,	25 lbs.

**BOILERS.**—Two—Return flued.

Length of boilers,	.	.	.	24	feet.	
Breadth	"	.	.	5	"	6 inches.
Height	"	.	.	5	"	2 "
Number of furnaces,	.	.	2 in each.			
Length of grate bars,	.	.	.	6	"	9 "
Number of flues,	.	.	10.			
Internal diameter of flues,	.	12, 15, and 16 ins.				
Length of flues, { above,	.	.	.	20	"	
{ below,	.	.	.	14	"	
Diameter of smoke pipe,	.	.	.	4	"	10 "
Height	"	.	.	32	"	

**PADDLE WHEELS.**

Diameter over boards,	27 feet	6 inches.
Length of blades,	7 "	
Depth "		22 "
Number "	24.	

*Remarks.*—One independent steam, fire, and bilge pump. Cabin on spar deck. Date of trial, February, 1860. C. H. H.