with one or more openings for the escape of steam from the material being heated, a cooling cylinder, means for passing a current of air through the said cylinder, and means whereby the material to be dried may be passed seriatim through the heating, evaporating and cooling cylinders, substantially as and for the purpose specified. 2nd. In a drier, the combination of a suitable casing, an evaporating cylinder provided at its upper side with one or more openings for the escape of steam, means for heating the said cylinder, a heating cylinder located above the evaporating cylinder so that it may be heated by the steam evaporated therefrom and provided with one or neated by the steam evaporated therefrom and provided with one or more openings for the escape of steam from the material being heated, a cooling cylinder, means for passing a current of air through the said cylinder, means for drying the said air before it enters the cylinder, and means whereby the material to be dried may be passed seriatim through the heating, evaporating and cooling cylinder, substantially as and for the purpose specified. 3rd. In a drier, the combination of a suitable casing, an evaporating cylinder provided at its upper side with one or more openings for the escape of steam, means for heating the said cylinder, a heating cylinder located above the evaporating cylinder so that it may be heated by the steam evaporated therefrom and provided with one or more openings for the escape of steam from the material being heated, a cooling cylinder, means for passing a current of air through the said cylinder, means for drying the said air before it enters the cylinder, means for cooling the said air before it is dried, and means whereby the material to be dried may be passed seriatim through the heating, evaporating and cooling cylinders, substantially as and for the purpose specified.
4th. In a drier, the combination of a suitable casing, an evaporating cylinder provided at its upper side with one or more openings for the escape of steam, means for heating the said cylinder, a heating cylinder located above the evaporating cylinder so that it may be heated by the steam evaporated therefrom and provided with one or more openings for the escape of steam from the material being heated, a cooling cylinder, means for passing a current of air through the said cylinder, means for drying the said air before it enters the cylinder, means for cooling the said air before it is dried, means for cooling the said air before it is dried, means for cylinder, means for cooling the said air before it is dried, means for slightly re-warming the said air after it has been cooled and died, and means whereby the material to be dried may be passed seriating through the heating, evaporating and cooling cylinders, substantially as and for the purpose specified. 5th. In a drier, the combination of a suitable casing, an evaporating cylinder provided at its upper side with one or more openings for the escape of steam, means for heating the said cylinder, a heating cylinder located above the evaporating cylinder so that it may be heated by the steam evaporated therefrom and provided with one or more openings for the escape of steam from the material being heated, a cooling cylinder, means for steam from the material being heated, a cooling cylinder, means for passing a current of air through the said cylinder, a pipe conveying the said air from the cooling cylinder, a chamber with the side of the said air from the cooling cylinder, a chamber with the side of which the said pipe communicates and which is provided with an opening at or near its upper end, a baffle plate extending downwards in front of the mouth of the said pipe and fitted to the sides of the chamber, an air passage being left below its lower end, and means whereby the material to be dried may be passed seriatin through the heating, evaporating and cooling cylinders, substantially as and for the purpose specified. 6th. In a drier, the combination of one or more drying cylinders with a cooling cylinder, means for passing the material to be dried seriatin through the drying and cooling cylinders, and means for passing a current of air through the cooling cylinder, substantially as and for the purpose specified. 7th. In a drier, the combination of one or more drying through the cooling cylinder, substantially as and for the purpose specified. 7th. In a drier, the combination of one or more drying cylinders with a cooling cylinder, means for passing the material to be dried seriatim through the drying and cooling cylinders, means for passing a current of air through the cooling cylinder, and means for drying the said air before it enters the cylinder, substantially as and for the purpose specified. 8th. In a drier, the combination of one or more drying cylinders, with a cooling cylinder, means for passing the material to be dried seriatim through the drying and cooling cylinders, means for passing a current of air through the passing the material to be dried seriatim through the drying and cooling cylinders, means for passing a current of air through the cooling cylinder, means for drying the said air before it enters the cylinders, and means for cooling the said air before it is drier, substantially as and for the purpose specified. 9th. In a dried, the combination of one or more drying cylinders with a cooling cylinder, means for passing the material to be dried seriatim through the drying and cooling cylinders, means for passing a current of air through the cooling cylinder, means for drying the said air before it enters the cylinder, means for cooling the said air before it is dried, and means for slightly re-warming the said air after it has been enters the cylinder, means for cooling the said air defore it is dried, and means for slightly re-warming the said air after it has been cooled and dried, substantially as and for the purpose specified. 10th. In a drier, a casing and an evaporating cylinder provided with a steam jacket or other means of heating, and one or more openings at the top for the escape of steam evaporated from material passing through the cylinder, in combination with a superposed heating cylinder exposed to the action of the steam arising from the evaporating cylinder and communicating with the said cylinder at one end, and means whereby the material to be dried may be passed seriatim through the cylinders, substantially as and for the purpose specified. 11th. In a drier, a casing and an evaporating cylinder provided with a steam jacket or other means of heating, and one or more openings at the top for the escape of steam evaporated from material passing through the cylinder, in combinution with a superposed heating cylinder exposed to the action of the steam arising from the evaporating cylinder and communicating with the said cylinder at one end, drip plates extending from the upper surface of seriatim through the cylinders, substantially as and for the purpose

the evaporating cylinder to the sides of the casing, drip plates extending out from the under surface of the heating cylinder to direct tending out from the under surface of the neating cylinder to direct condensed water clear of the openings in the evaporating cylinder, and means whereby the material to be dried may be passed seriatim through the cylinders, substantially as and for the purpose specified. 12th. In a drier, the combination of a casing, one or more drying cylinders, a cooling cylinder, means for passing the material to be dried seriatim through the drying and cooling cylinders, an air conduit of which the cooling cylinder forms a part, means for passing a current of air through the said conduit, and drying apparatus forming a part of the said conduit and comprising a chamber, calcium chloride or other absorbent, dry or in solution, contained in the said chamber, and means for bringing the air passing through the said chamber into intimate contact with the said calcium chloride, substantially as and for the purpose specified. 13th. In a drier, the combination of a casing, one or more drying cylinders, a cooling cylinder with an opening at or near each end, means for passing the material to be dried seriatim through the drying and cooling cylinder, a partition forming with the casing an air chamber communicatder, a partition forming with the casing an air chamber communicating with the cooling cylinder by means of the opening at or near one end of the said cylinder, an air pipe communicating with the said air chamber, an air drier with which the other end of the pipes communicate and means for passing a current of air through the conduit formed by the said cooler, pipe, chamber and cylinder, substantially as and for the purpose specified. 14th. A drier for air used in the celling at linder, as obtained a solution of calcium. used in the cooling cylinder, comprising a tank, a solution of calcium chloride or other absorbent contained in the tank, means for pumping the solution from the bottom of the tank and discharging it within the top, a series of slats suitably spaced crossing said tank and arranged in rows a suitable distance apart so that the spaces of one row "break-joint" with the spaces of the adjoining rows, and means for pumping air through the said tank, substantially as and for the purpose specified. 15th. A drier for air used in the cooling cylinder, comprising a tank, a solution of calcium chloride or other absorbent contained in the tank, means for pumping the solution from the bottom of the tank and discharging it within the top, a series of slats suitably spaced crossing said tank and arranged in used in the cooling cylinder, comprising a tank, a solution of calcium from the bottom of the tank and discharging it within the top, a series of slats suitably spaced crossing said tank and arranged in rows a suitable distance apart so that the spaces of one row "break-joint" with the spaces of the adjoining rows, means for pumping air through the said tank, an overflow pipe for solution, and a tank into which the said overflow pipe discharges, substantially as and for the purpose specified. 16th. In a drier, a casing and an evaporating cylinder provided with a steam jacket or other means of heating, and one or more recognized that the terms of the control of them. cylinder provided with a steam jacket or other means of heating, and one or more openings at the top for the escape of steam evaporated from the material passing through the cylinder, in combination with a heating cylinder exposed to the action of the steam arising from the evaporating cylinder, and means whereby the material to be dried may be passed seriatim through the cylinders, substantially as and for the purpose specified.

No. 67,966. Boat. (Vaisseau.)

