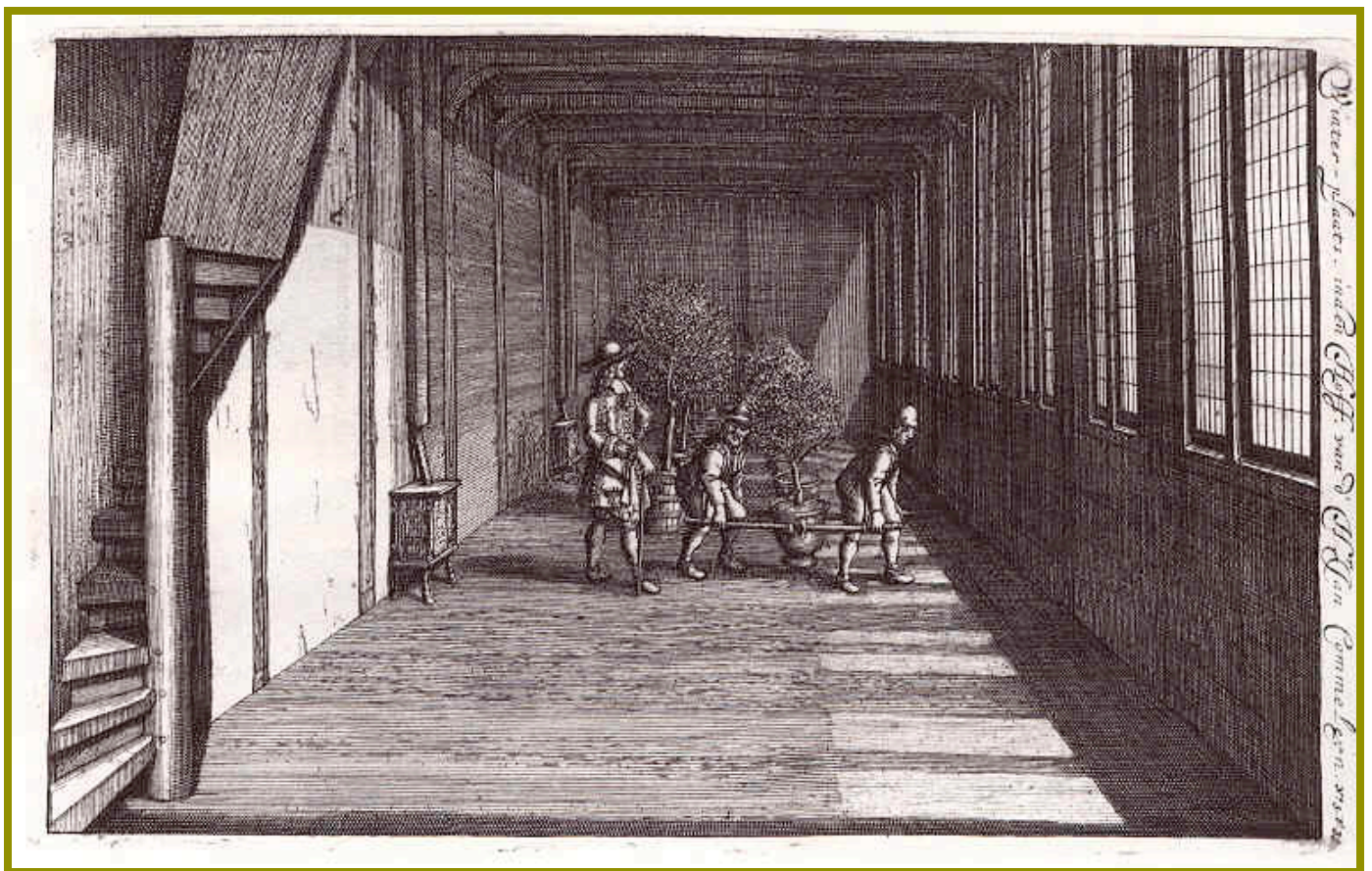
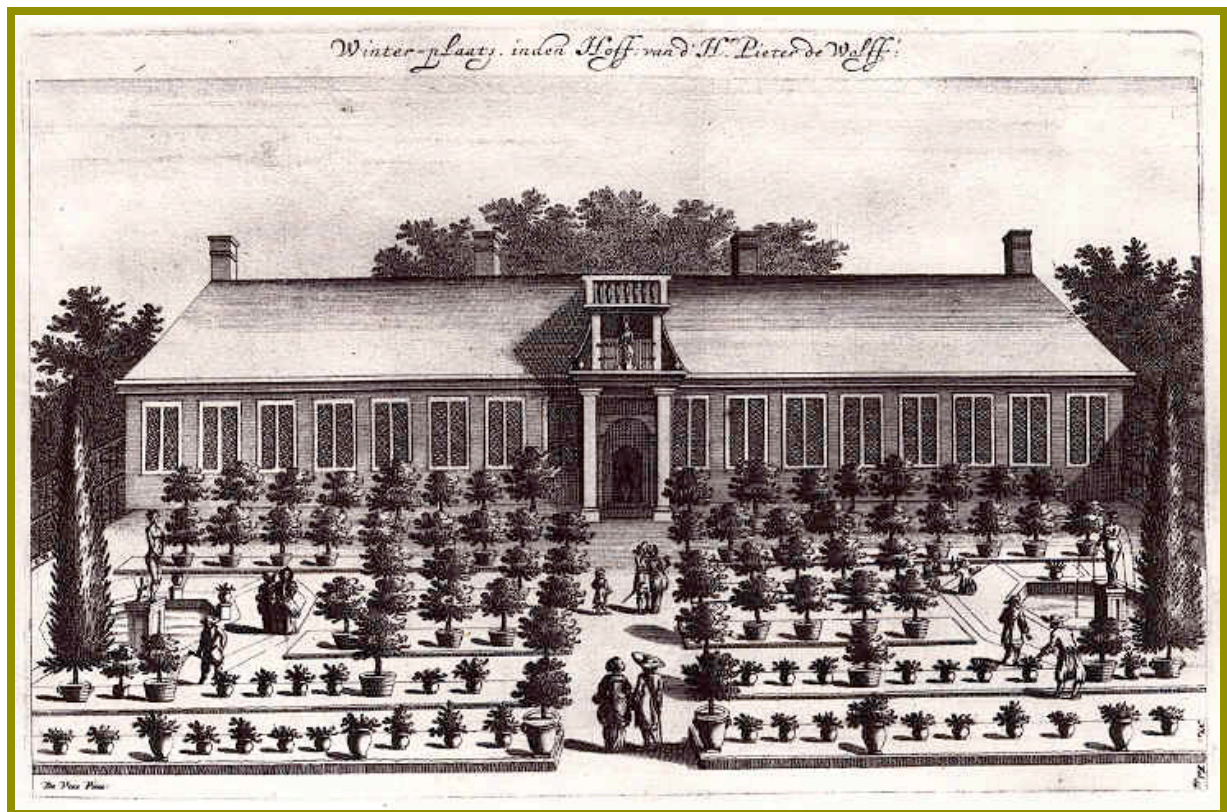


Early Heating of Glasshouses

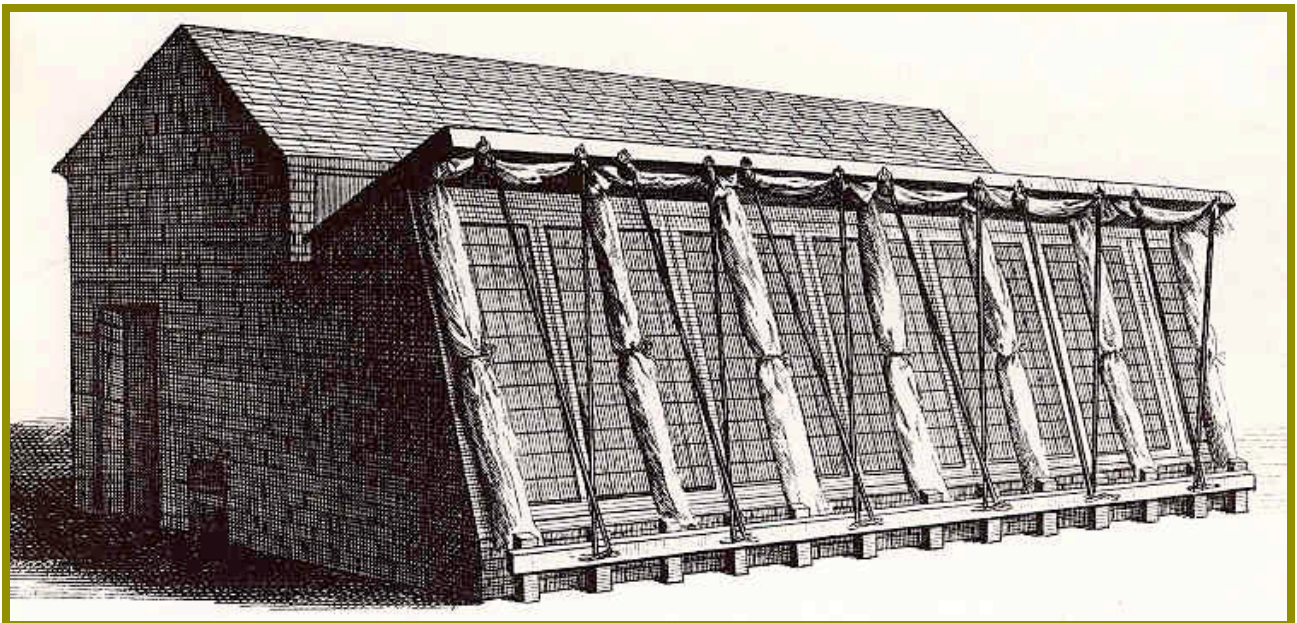
Includes illustrations from Hix and from Woods (see References)



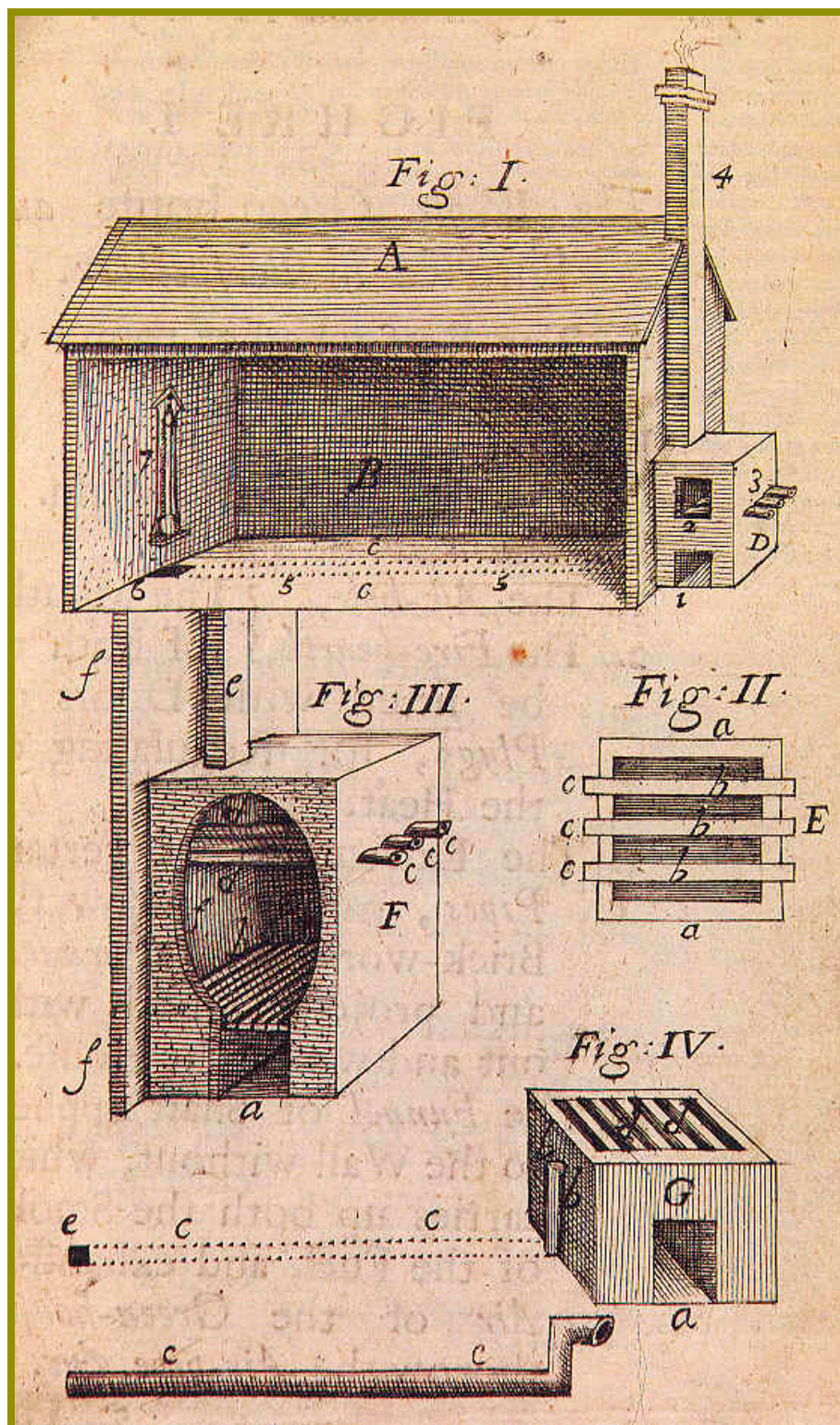
Jan Commelyn's "Winterplaats" at Leiden showing heating stove (left) 1683



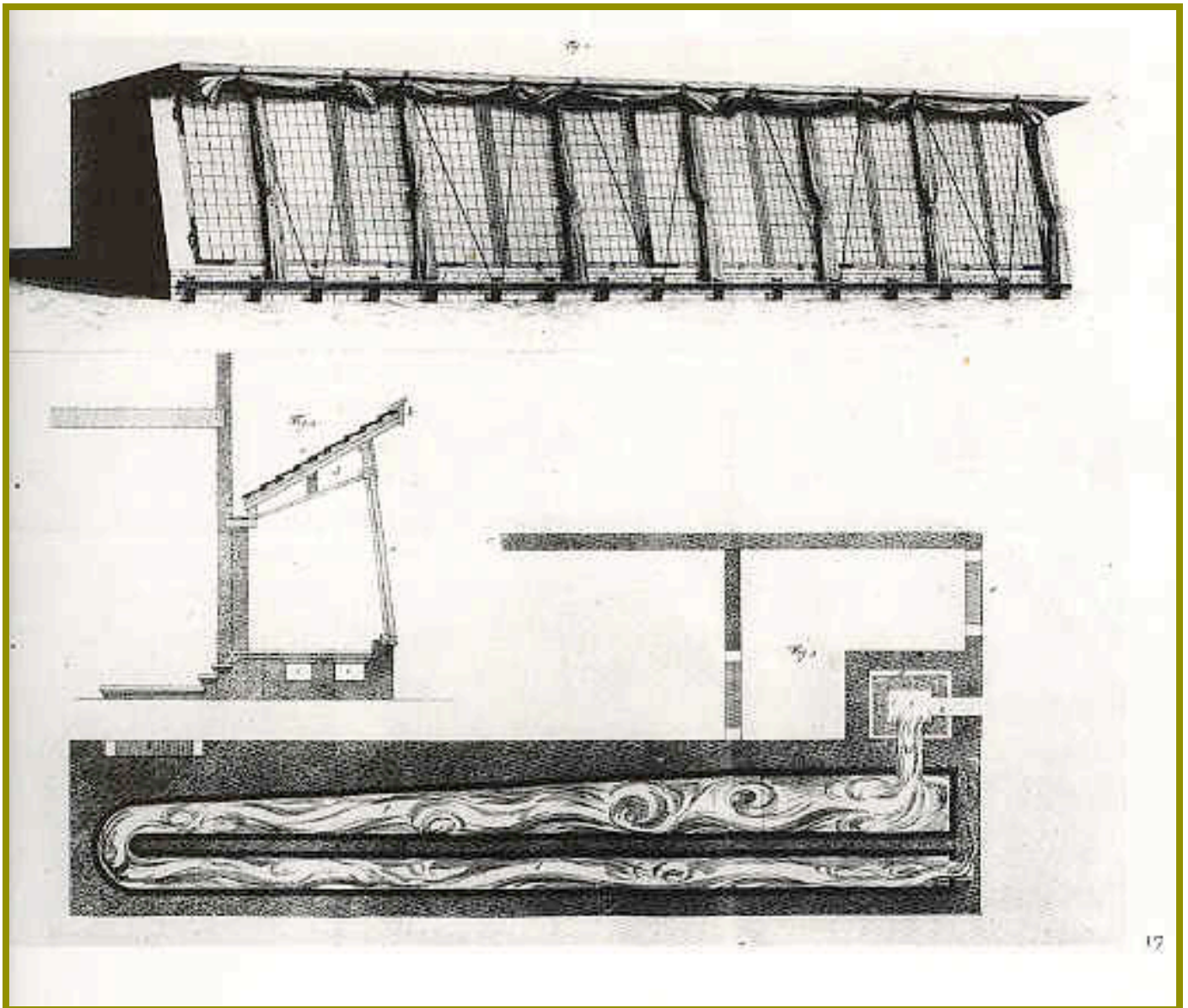
Pieter de Wolff's Dutch orange house. Note the heating chimneys (Commelyn 1683)



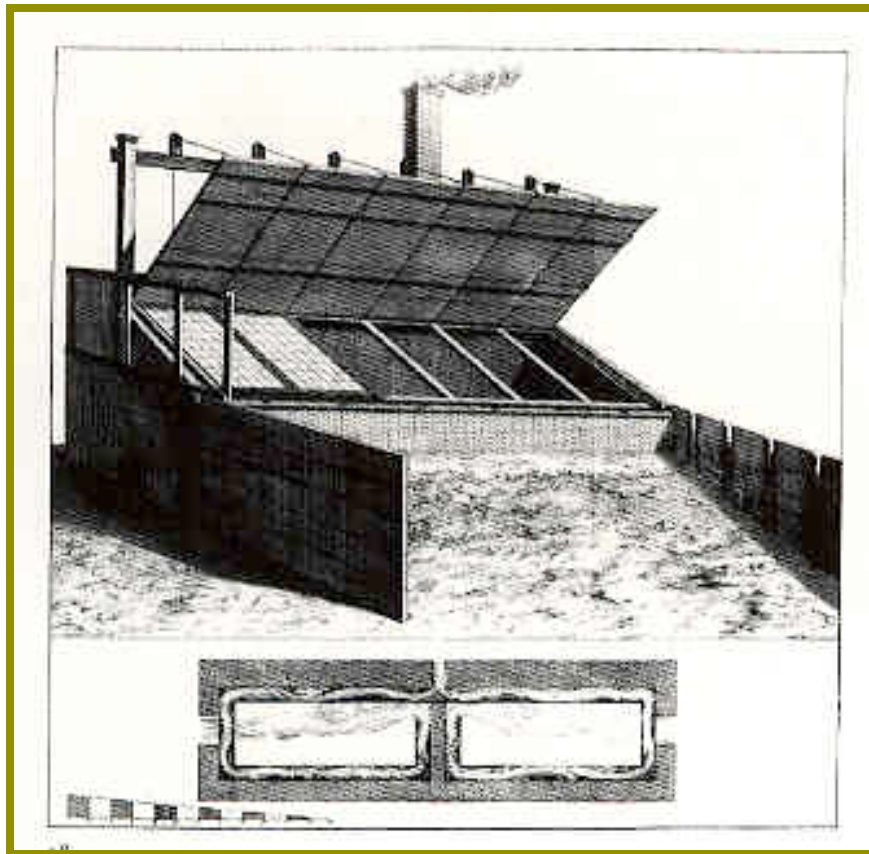
*A "stove" or forcing house using hot air flues
(Diderot & d'Alembert's Dictionnaire Encyclopedie 1760)*



John Evelyn's greenhouse and heating design
(*Kalendarium Hortense* 1691)



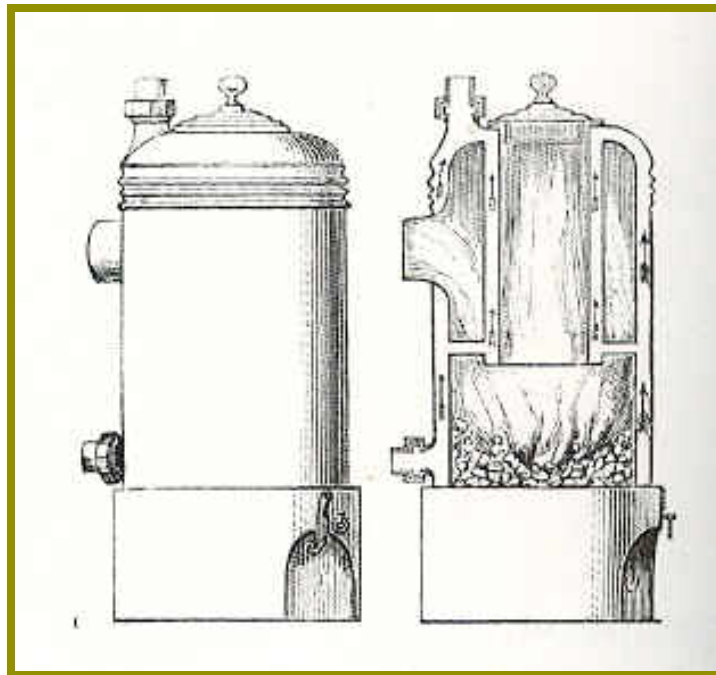
18th century Dutch forcing-frame with a heated-flue system



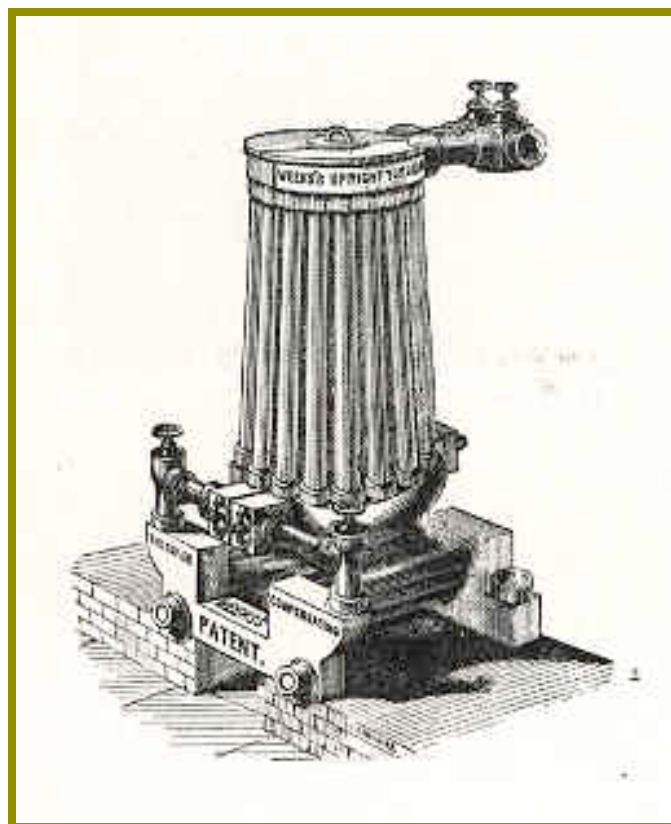
Flue-heated Dutch forcing-frame 1737



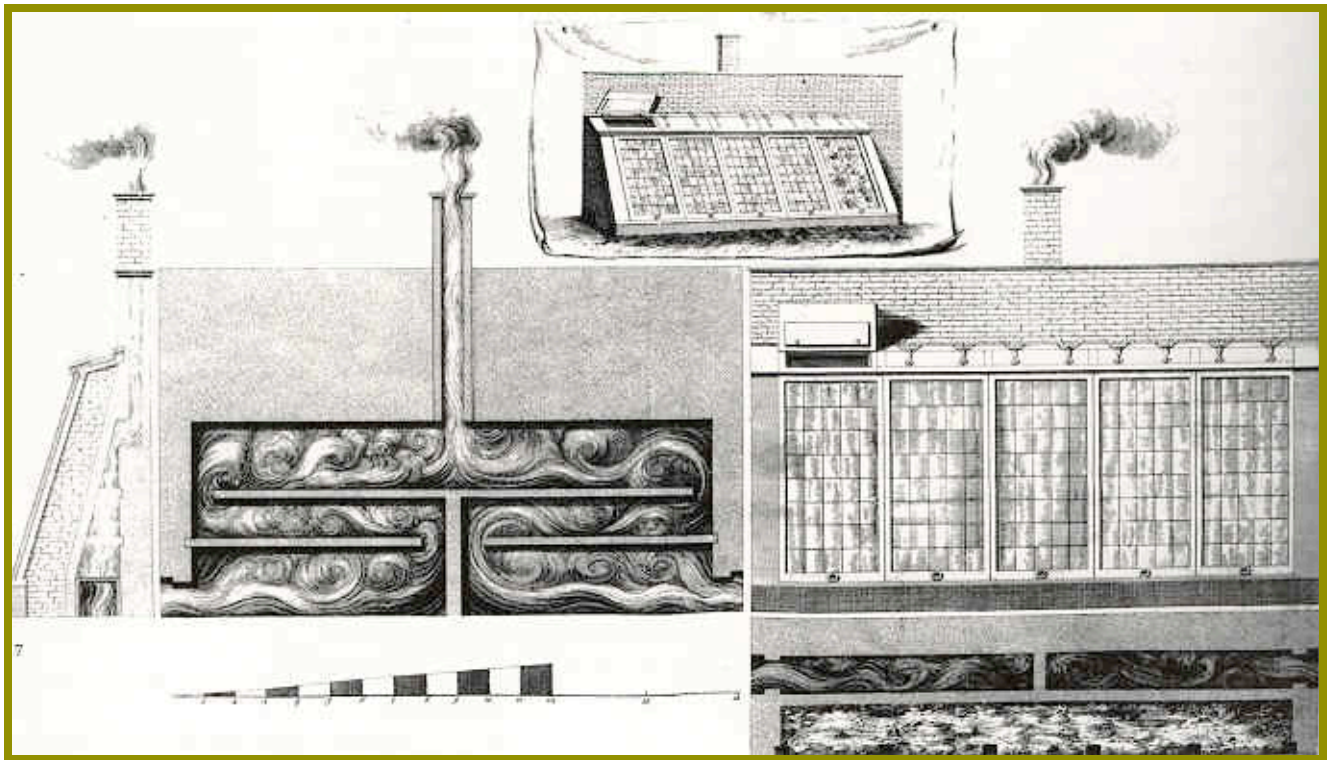
Oxford Botanic Garden 1771



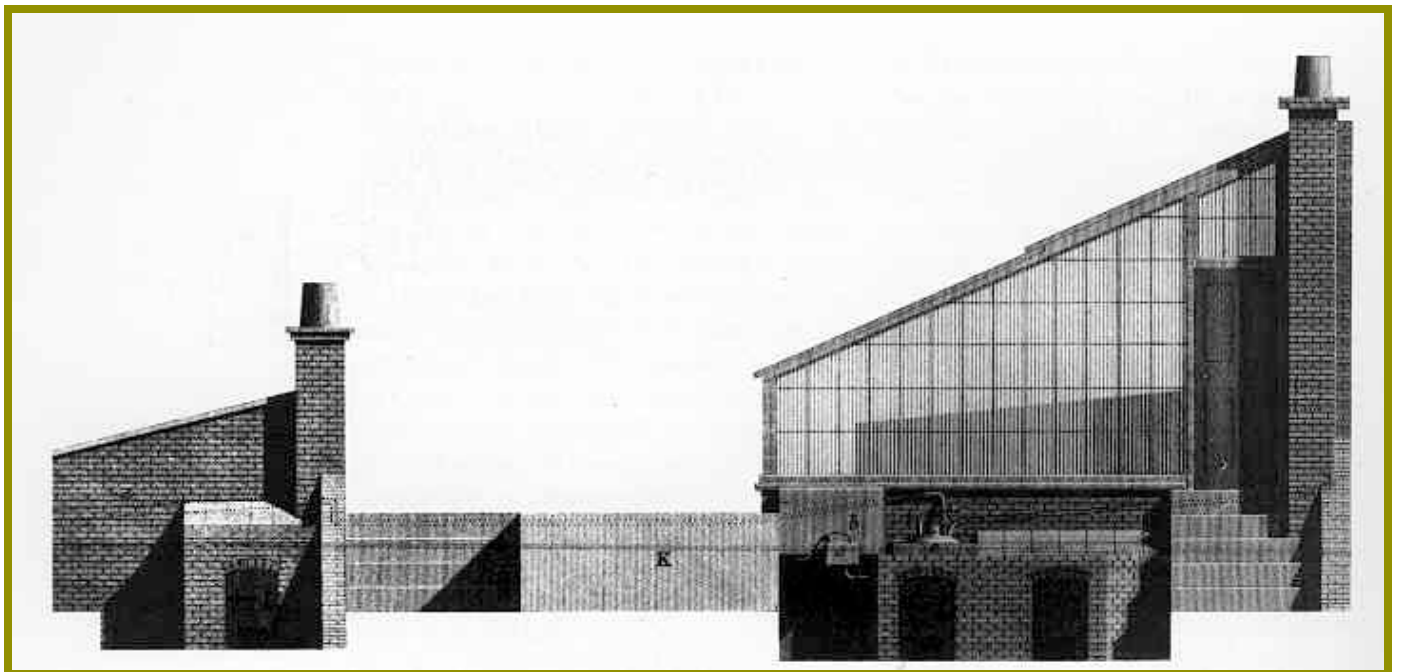
*George Stephenson's double-cylinder boiler
(The Book of the Garden, Chas McIntosh 1853)*



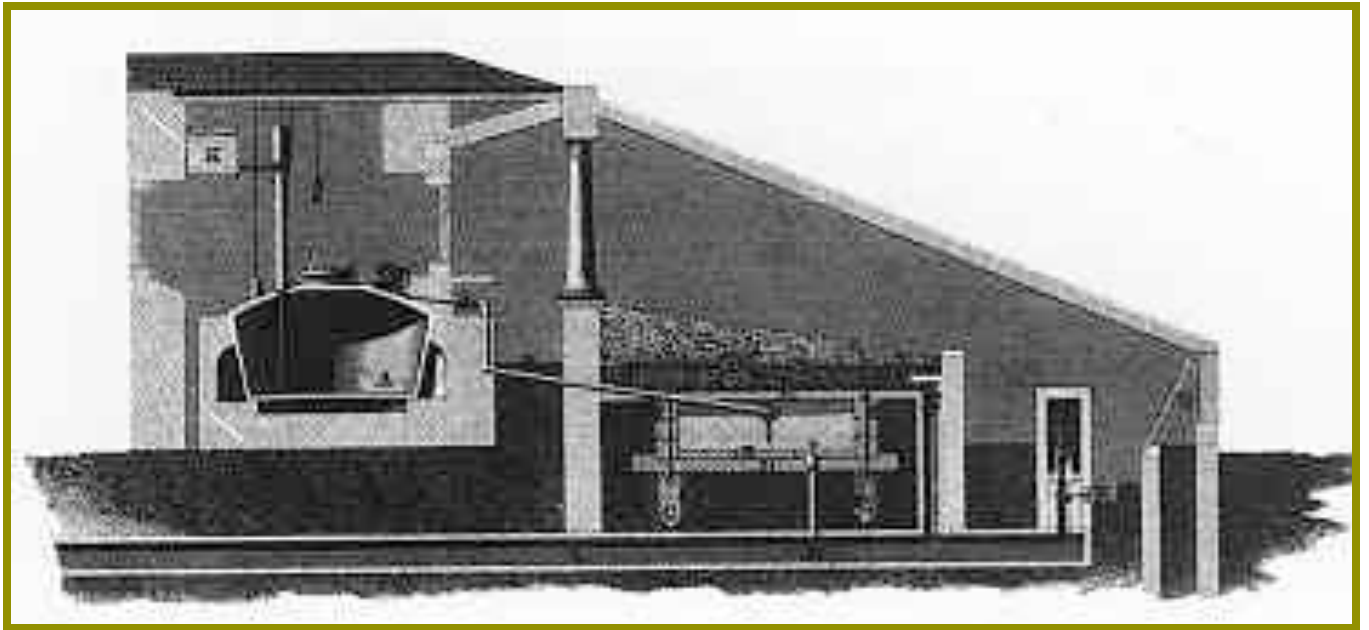
Week's upright tubular boiler 1851



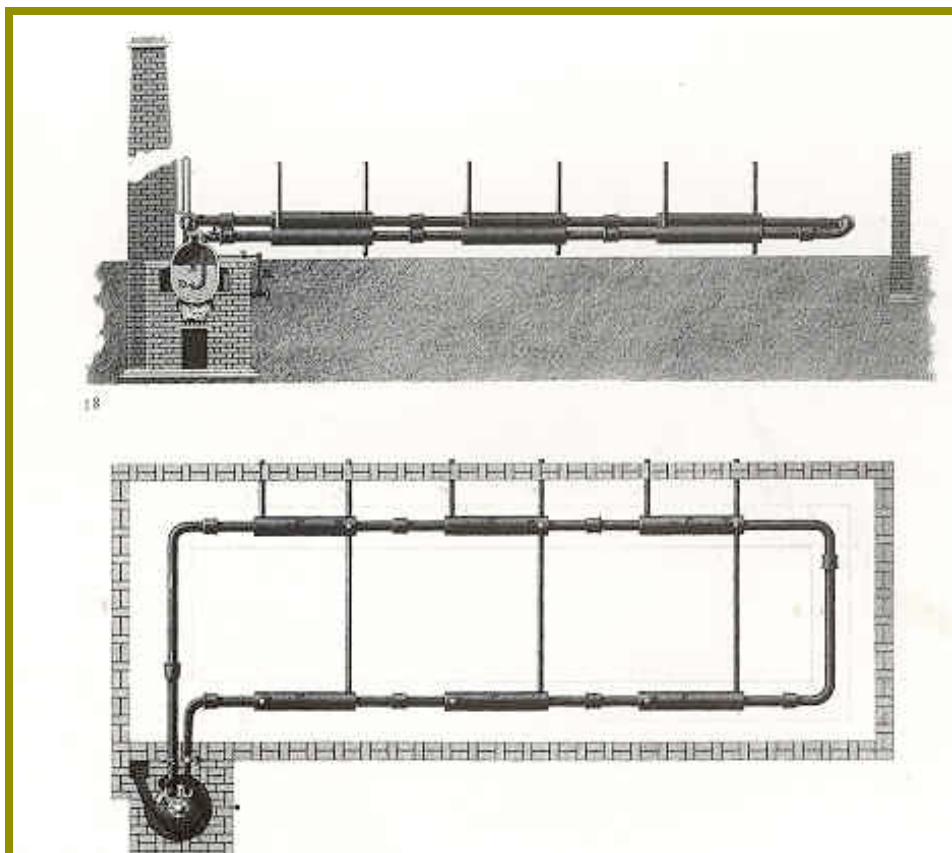
Dutch forcing-frame with back wall flue, Holland, 1737



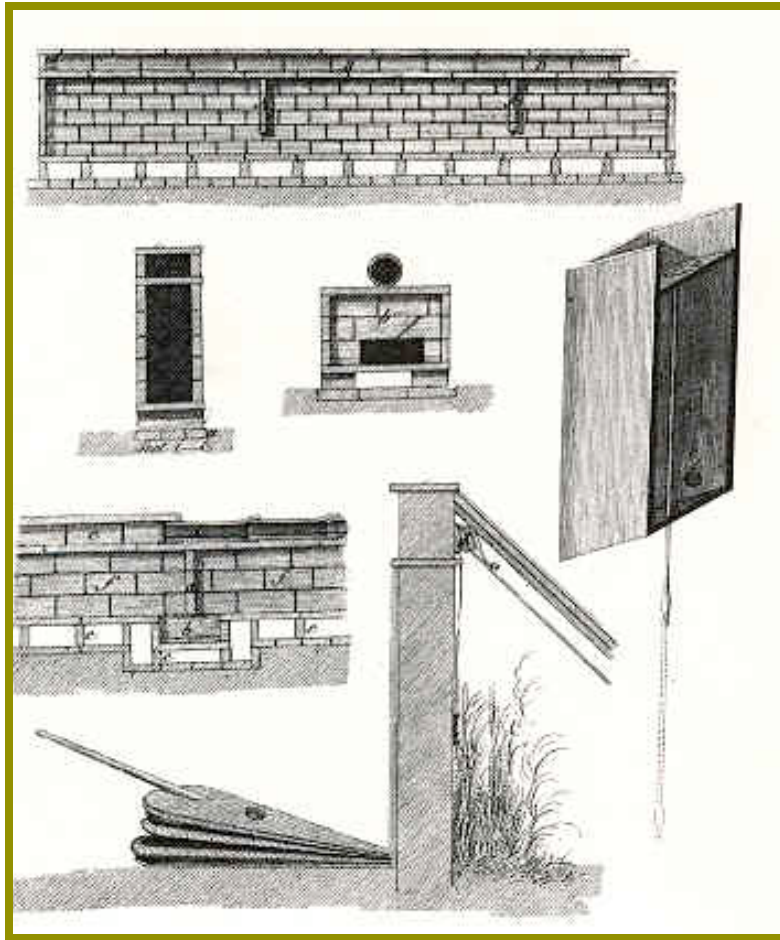
Steam heated vinery by James Brown (Trans. Horticultural Soc. 1818)



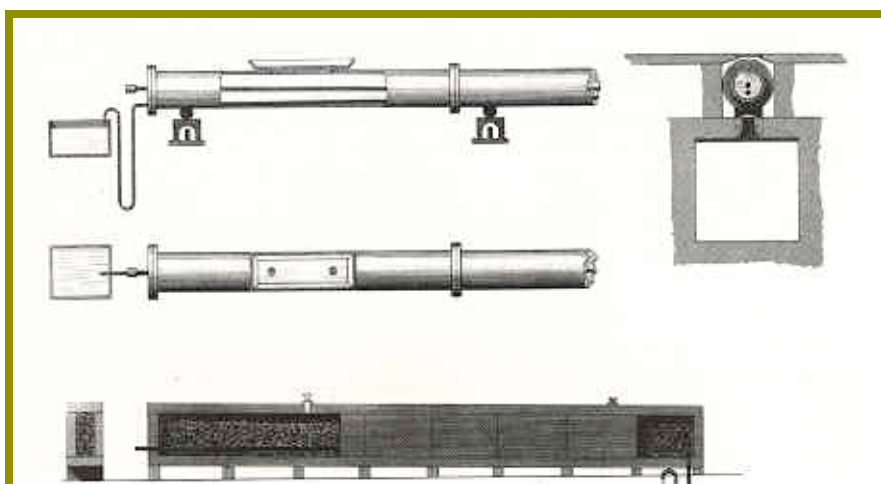
*Heating system at the Imperial Gardens, Taurida Palace, St Petersburg
(Trans. Horticultural Soc. 1822)*



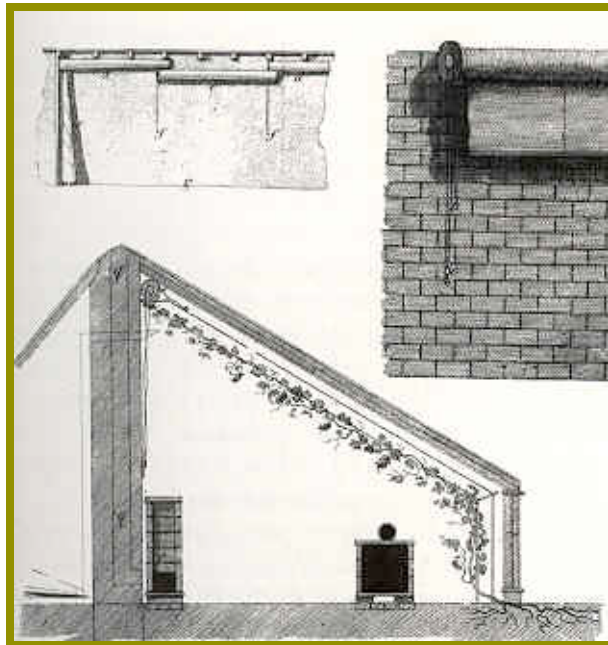
*Hague's "steam apparatus" applied to a hothouse by Joseph Hayward
(Trans. Horticultural Soc. 1822)*



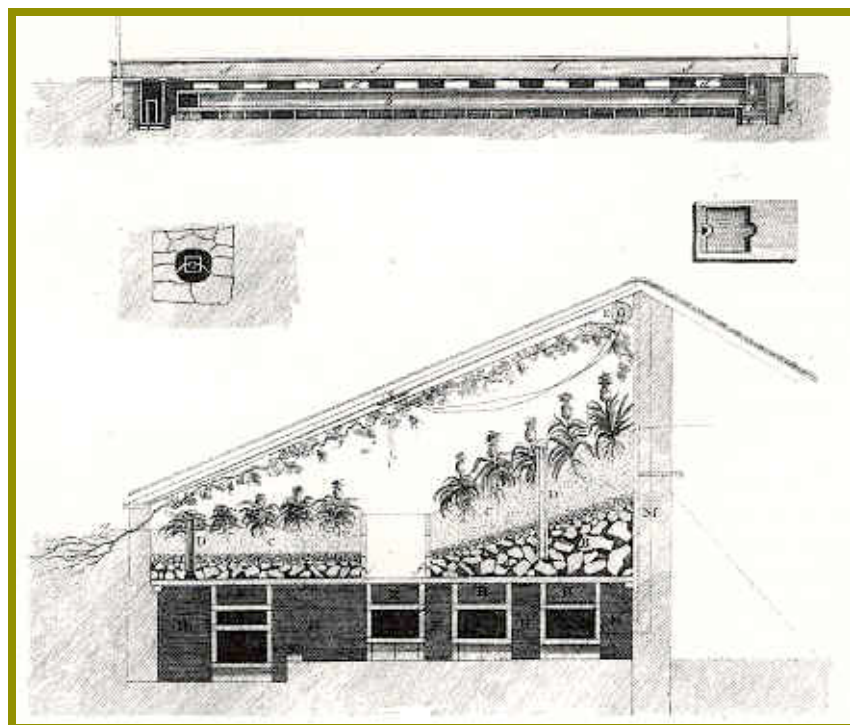
*J C Loudon's early smoke flue and system of blinds for night-time insulation
Complete with bellows for "air replenishment." From his Treatise of 1805*



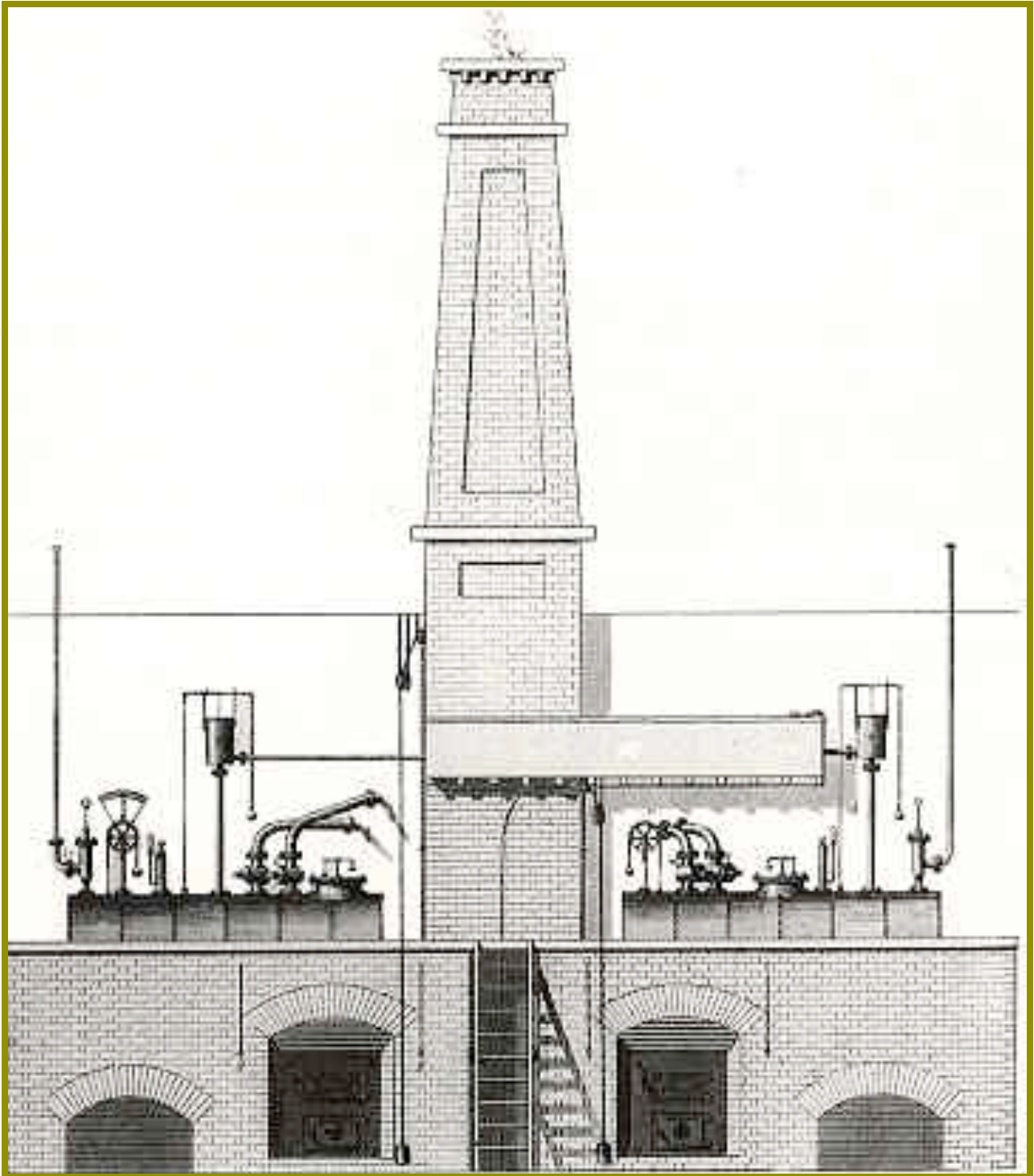
*Henry Stotherts' methods of heating by steam
(Trans. Horticultural Soc. 1835)*



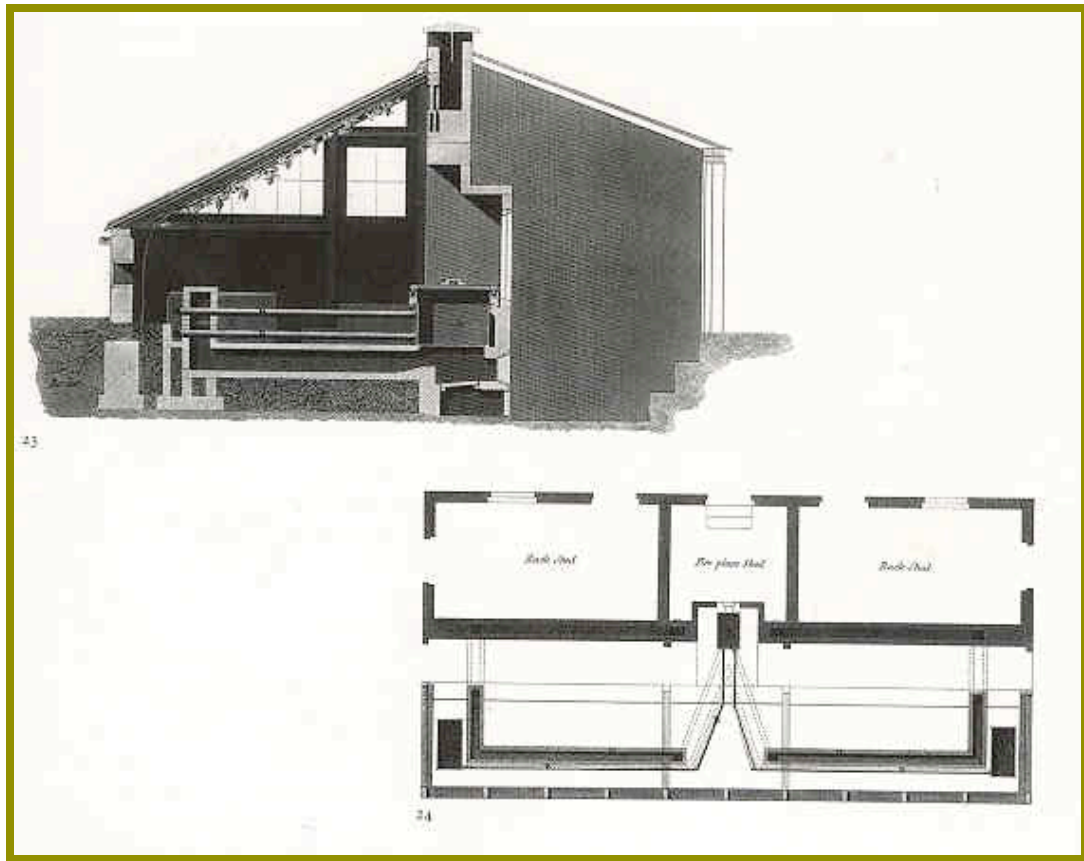
*J C Loudon's early smoke flue and system of blinds for night-time insulation
From his Treatise of 1805*



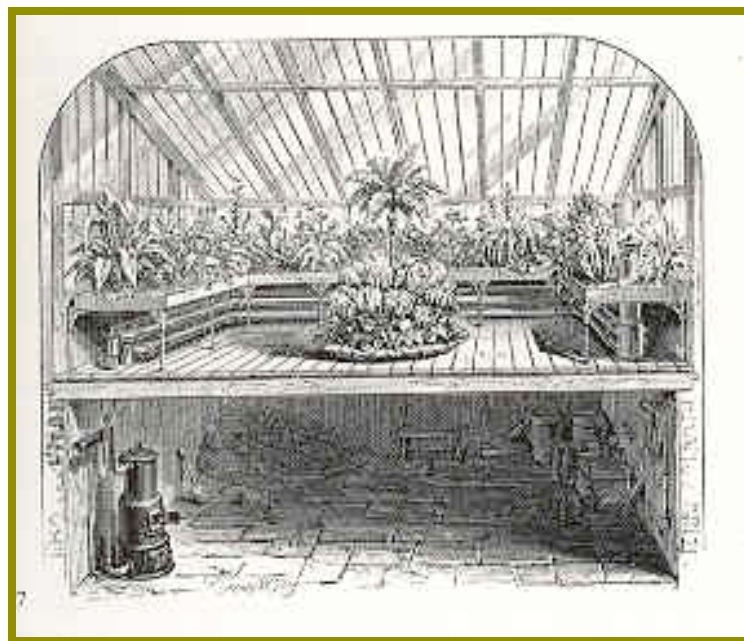
*Hothouse design depicted by J C Loudon in his Treatise of 1805
The space around the flues was filled with water to aid humidification*



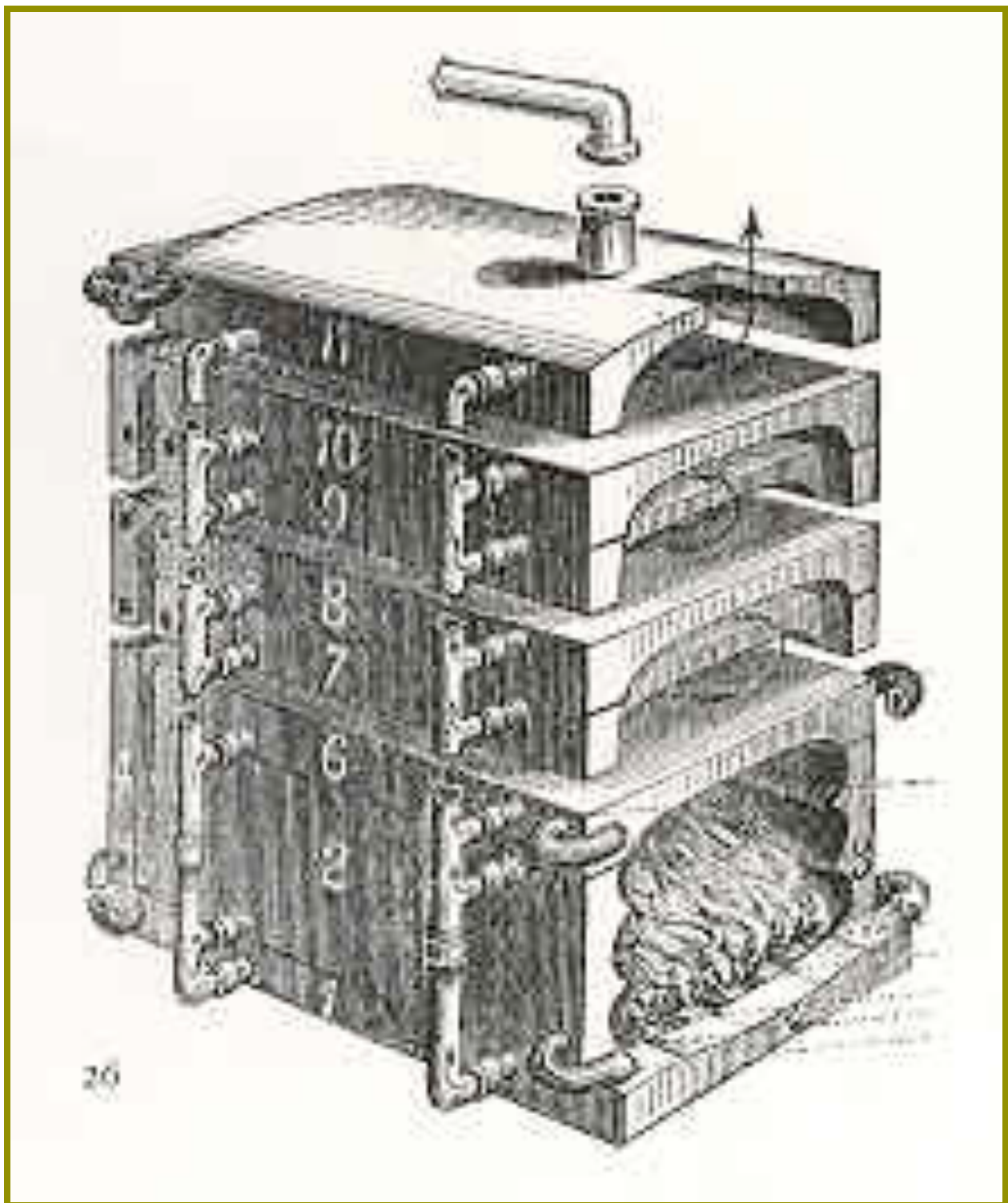
*The heating “machinery” at Loddiges’s nursery in Hackney 1818
(Drawn by George Loddige)*



*W Atkinson's hot water heating for Anthony Bates, Aberamen, Glamorganshire 1822
(Trans. Horticultural Soc, VII 1830)*



Hitchins & Co hot water boiler, New York 1889



English cast-iron horizontal sectional boiler 1871

