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PUBLICATIONS WITH INFORMATION ON PRISONS

*English Prisons: An Architectural History*

by Allan Brodie, Jane Croom and James O Davies

ENGLISH HERITAGE

2002, Some 287 pages of illustrations and information


he sang expression, clink, meaning prison, is derived from London's 16th century jail which stood on Clink Street in Southwark, and about which John Stow wrote in his Survey of London (1598) "...a gaol or prison... for such as should be able, freely or freely the peace on the said bank (Bunswick), or be the brothel houses..." Some of the earliest and most famous dungeons to be found in Great Britain are those in the Tower of London (started in 1078) destined to become "...a symbol of authority and strength as well as a place of imprisonment, torture and execution, the name of which inspired fear..."

According to the architectural historian Nikolaus Pevsner in his book A History of Building Types, originally imprisonment was prior to trial, or prior to execution, or for debt, or as a cruel form of revenge. Imprisonment as a form of punishment seems to have originated in the manuscripts around the 13th century, where offenders were put into the cell (hence incarcerated), this being only accessible from the top by a ladder and without a door or windows. Records from the late Middle Ages and early Renaissance illustrate a few dungeons at the bottom of round towers in castles or town walls, but prison with cells came later. The Italian Filarete, in his De re aedificatoria (early 1640's), refers to a device for a large prison where the prisoners are in cells according to class or crime. Poussin states that the building usually created as being the first prison planned with cells and a large work room is the S. Michele Prison in Rome (1783). It had 20 cells each of 3 meters and each cell had a lavatory.

In London, the Fleet was a notorious city prison from 1397 until it was demolished in 1844. It was said to be the largest brothel in the kingdom and the scene of cruelty, depravity and extortion. But it was the writings of the well-to-do Bedfordshire squire and prison reformer, John Howard (1726-90), which moved us most about the sorry state of the prisons of that period. Time and again he found prisons with no water, no sewers and no fresh air. In Norwich Gaol he noted that prisoners being "almost suffocated" but the large box cells designed by Stephen Hales for ventilating purposes, and operated by two men working at a lever, was said to have significantly reduced the incidence of fever in the Winchester Hospital and Gaol (1744). Edwards, commenting on this (1881), wrote:

"A constant objection to the ventilating cell..."

The most famous of the London prisons was Millbank Penitentiary (1813-21); Pentonville (1840-42) by Sir Joshua Jebb, Surveyor General of Prisons and author of Notes on the Construction and Ventilation of Prison; Holloway, built a few years later (1849-53) by Bunning; and Wormwood Scrubs (1864). Jebb's scheme for Pentonville was a landmark in the heating and ventilating of prisons. A drawing of the system, shown on a leaflet, reveals that at the centre of the installation is a boiler and heat exchanger. Fresh air is drawn through underground ducts to the heating coils, and then passes to main horizontal warm air flues. Vertical riser ducts, with a branch leading to each sound. The principal medical officer carried out a series of tests in which he established that between 30 and 76 m³/h of fresh air was supplied to each cell "with extraordinary regularity". It was noted that this ventilation and a temperature of between 11 and 15°C could be maintained in the coldest weather, for a cost of less than a farthing a cell a day. Jebb also discovered a fact which is often overlooked: that since a newly-built structure has not thoroughly dried out, its initial fuel consumption is higher than normal. "Hence", he stated, "the necessity of not trusting any results in connection with the power of an apparatus until all the flues and the building are perfectly dry."
2012: Photos of Newark County Jail, USA
Within these walls

by Ken Dale

The model prison at Pentonville, built by Sir Joshua Jebb in the mid-1800s, is undergoing refurbishment. Ken Dale looks at the building services engineering of this pioneering structure.

With Christmas approaching, it may seem an inappropriate time to celebrate the 150th anniversary of the building of a prison. The purpose of doing so is to bring to the attention, of present-day building services engineers, the work of a remarkable Victorian engineer, Sir Joshua Jebb.

The prison which he designed and built at Pentonville is still in use today. Modifications are now in progress to expedite the re-opening of Pentonville, which is likely to remain in use, basically as Jebb conceived it, for many decades to come.

Pentonville model prison and Jebb

Jebb, at the time a Major in the Royal Engineers, selected the site in 1839. He then produced the designs for the prison, including its building services, and supervised the construction and commissioning. The building was complete by September 1842, and was first occupied on 21 December of that year.

The 350-acre site became known as the Model Prison, and the model was used at home and abroad. Jebb himself oversaw the building of many similar prisons, and after the first prisoners were installed at Pentonville, Jebb became chairman of directors of convict prisons. In 1859 he was knighted for his work.

Jebb's report on the building of Pentonville and its first two years of operation formed the basis for this article. It was translated into French and German and was widely read by prison reformers in America.

The total area of the site was about six acres, with a garden at the rear. Four cell blocks, three stories high, radiated from an entrance hall behind the chapel. Each cell was 14 sq ft, giving a total area of 8560 sq ft.

A fourth storey was later added to the cell blocks, increasing the capacity about 1150 individual cells, and cellery lights were incorporated into the new mods. The building works increased the extent of the street and road routes.

The chapel was designed by Sir James Pennethorne, R.I.A. (later Sir James Pennethorne, R.I.A.).

The prison was designed to accommodate 1200 prisoners, with a maximum of 1500. The accommodation was divided into 120 cells, each containing 10 prisoners. The prison also had a bakery, a laundry, a medical centre, a library, and a canteen.

Heating and ventilation

The heating and ventilation systems were designed to provide a comfortable environment for the prisoners. The air was circulated through the cells and corridors, and the temperature was maintained at a comfortable level.

One of the major concerns of the prison's engineers was the quality of ventilation in the cells. Jebb was very concerned about this, and he was able to ensure that the ventilation was adequate. He also ensured that the cell doors were well insulated, and that the windows were well-constructed.

Despite the challenges of the time, Jebb was able to design a prison that was both efficient and humane. His work was widely admired and he became a respected figure in the field of prison design.

The main object of his design was:

- to provide a suitable quantity of fresh air for each cell
- to maintain the temperature of the air within a comfortable range
- to ensure the safety and comfort of the prisoners
- to be able to control the air temperature and flow in each cell

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JOHN HOWARD
PRISON REFORMER
D. L. Howard

With a foreword by
HUGH KLAIRE
Secretary, Howard League for Penal Reform

1958
1978 includes old photos of prisons and prison life
Victorian Architecture

James Stevens Curl

1990 Features Wormwood Scrubs & Sir Edmund Du Cane
1810 (facsimile) with drawings and information on Coldbath Fields Prison, Fleet Prison, King’s Bench Prison & Newgate Prison
The History of BODMIN JAIL

1770

2006

Bill Johnson
1983 (from the German): Chapter on Prisons
Includes prisons at Ipswich, Bury St Edmunds, Geneva, in Paris, Cherry Hill (USA), London and Berlin
1982 Information on the Prison Mazas in Paris and on Pentonville
2000 includes mini-biographies on Joshua Jebb and Edmund Du Cane
The Evolution of a Family Firm

Stothert and Pitt of Bath

Hugh Torrens

1978 Manufactured treadmills for prisons at Taunton, Shepton Mallett and Bath
LONDON

2000 years of a city and its people

FELIX BARKER & PETER JACKSON

CASSELL • LONDON

1974 with illustrations of various prisons: Bridewell, Brixton, Clerkenwell, Fleet and Newgate
METROPOLITAN
IMPROVEMENTS

London in the
Nineteenth Century

1827 (facsimile) Millbank Penitentiary
NIKOLAUS PEVSNER

A HISTORY OF BUILDING TYPES

THAMES AND HUDSON
LONDON

1976: Chapter 10 covers prisons in Europe and USA
2004: includes Coldbath Fields, the Panopticon & Wormwood Scrubs
1988 (from the German): Wronke and Pentonville Prisons
II.—On the Construction and Ventilation of Prisons. By Major Jebb, R.E.

Among the varied duties which Officers of Engineers are called upon to execute under their motto, "ubique quo fas et gloriâ ducunt," the construction of prisons is one which has recently engaged attention, and is generally looked upon with an increasing interest. It may perhaps therefore not be deemed inappropriate to devote a few pages to a consideration of the subject, and, in connexion with it, of a system of ventilation and warming, the principle of which is equally applicable to barracks and casemates, &c.

In the first consideration of any subject it is of essential importance to have a clear idea of what it is desired to effect, and when that point is attained, the means by which it is to be accomplished will seldom be far behind.

**General Principles.**

The main points to be considered in the construction of prisons are—
1st. The site.
2nd. The general arrangement and disposition of the component parts of the building, with a view to security and convenience.
3rd. Those further details which may be applicable or requisite for the enforcement of the particular system of discipline which it is intended to carry into effect.

First, with respect to the site:—It is desirable that a prison should be built in a dry and airy, and, if possible, in an isolated situation; the former conditions being conducive to the health of the prisoners, and the latter to their quiet and seclusion. It should not be overlooked by ground or buildings in the immediate neighbourhood, in order that secret communication from without may be prevented, and to render it more difficult for the prisoner to obtain assistance in an attempt to escape. It should not be very remote from
SOCIAL HISTORY OF VICTORIAN BRITAIN

BY CHRISTOPHER HIBBERT

1975 Clerkenwell House of Correction