

**ROUND WARDS - AN INGENIOUS BUT SHORT-LIVED CONCEPT**  
**IN HOSPITAL DESIGN**

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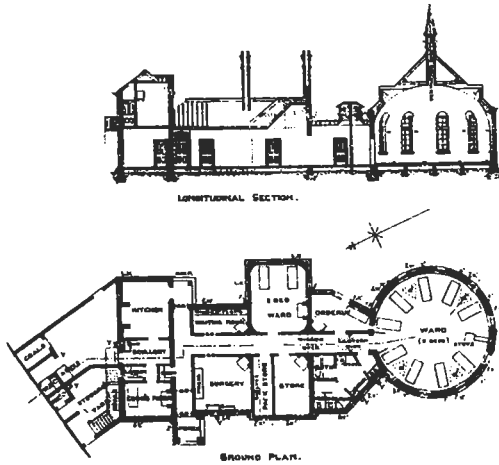
**J. A. Shepherd**

The third Liverpool Infirmary was opened in 1889 and vacated in 1978. Designed by Alfred Waterhouse the building is now under a preservation order. Of special interest are four circular wards.

The use of such wards had been advocated strongly in 1878 by John Marshall, Professor of Surgery at University College, London. His idea was not original for in 1852 an army engineer, Sir Andrew Clarke, had proposed (without success) that the plan should be adopted for military hospitals in India and elsewhere abroad. Earlier a Dr. McKenna, said to have been an army doctor, had informed Clarke that on active service, if casualties were nursed in a circular church building, the rate of wound infection was lower than that encountered in the more orthodox rectangular buildings commandeered for use as army hospitals. Further, Clarke had learned that in Rome in 1849, during Garibaldi's campaign, the circular Pantheon, with its central opening in the roof, had been used as a military hospital 'with the most satisfactory results'.

Marshall stressed the improved lighting possible in round wards built in towers linked to the main hospital building. Ventilation was more effective, with a flow of air from the periphery to the centre, and its extraction through a pillar in the middle of the ward. The air currents did not cross from one bed to another as in the standard "Nightingale" ward. He emphasised that the patient observation was improved by the system. Marshall did not, however, mention that round wards were more expensive to build than rectangular wards and, having fewer beds, were more costly to staff per patient. This increase in building and running costs may well account for the short life of the idea.

Unknown to Marshall the erection of a hospital with circular wards was begun in Antwerp in 1878 and completed about 1882. But these wards did not have a central extraction of air.



Seaford Cavalry Barracks, Liverpool. Designed by Sir A. Clarke R.E.

The first circular wards in England were in the Miller Hospital at Greenwich, opened in 1884. About the same time Clarke designed and completed a small hospital at Liverpool for the Cavalry Barracks at Seaforth. This had only one ward, circular with nine beds. No trace of the building survives. In 1902 the new Northern Hospital was opened which had four circular wards rather smaller than those in the Infirmary. This hospital was demolished in 1979. Between 1884 and about 1905 some 15 hospitals with circular wards were built in England. In addition to the Liverpool Infirmary two of these hospitals survive as listed buildings but, as far as can be ascertained, the circular wards are no longer in use.

When Waterhouse was preparing his plans for the Liverpool Infirmary, like most hospital architects of the time he took them to Florence Nightingale for criticism. He wrote a full report of his discussion with her for the Hospital Building Committee. He indicated that Florence Nightingale approved the plan in general but that she was not enthusiastic about the use of round wards. No other record of Miss Nightingale's opinion on this innovation has as yet been traced.

When I first came to Liverpool I worked for three years with Professor Charles Wells in a round ward in the Infirmary. The arrangement was preferable to that in the much larger rectangular wards as far as ward rounds, patient care, and patient comfort were concerned.

Initially there were open fires in the large central pillar but these had been replaced by large stoves. Chairs were provided around the pillar and this was a cosy meeting point for up-patients. Mr. David Annis worked in the circular wards throughout most of his surgical career and he agrees that these had great advantages over the standard 'Nightingale' wards. He recalls that the ward sisters usually sat at a small table in the centre and so had full control. Dr. Wilfred Cook gives the views of a physician, having worked for many years in a circular ward in the Royal Northern Hospital. He too commends them highly, not least because "the consultants' round really was a round".

It is something rather special that we in Liverpool have intact in the Royal Infirmary this reminder of an interesting, although short-lived, development in hospital design. I have for some time been of the opinion that one of the Infirmary round wards should be utilised as a medical museum and medical archive store. A segment could be fitted out with beds and equipment of such a ward 100 years ago. In a second segment an operating theatre of these earlier days could be reconstructed. Other segments could be used for the display of surgical instruments and other artefacts which at present are scattered over Liverpool in different locations and not readily available for teaching or study, nor preserved as well as they should be. Any remaining space could be shelved for the safe storage of hospital archives - at present an unsolved problem in Liverpool.

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### Notes

Most of the information given here is to be found in the excellent article by Jeremy Taylor, 'Circular Hospital Wards: Professor John Marshall's Concept and its exploration by the architectural profession in the 1880s', in *Medical History*, 32 (1988), pp. 426-48. The report by Waterhouse on Florence Nightingale's criticism of the plans for the Royal Infirmary is in Clifford Brewer's *Liverpool Royal Infirmary 1887-1988* (Liverpool, 1980), pp. 11-18.

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