favourable response of staff to several aspects of attachment. The district nurses expressed more satisfaction in attachment schemes than did health visitors.

Discussion

There can now be little doubt that the majority of general practitioners favour local authority nurse and health visitor attachment schemes (Boddy, 1969). While administrative problems do exist, the fact that they can be overcome is clear in the reports of Leiper (1965-6) and Warin (1968). When full attachment is an established policy its ultimate success is a highly individual matter depending largely on the personalities and motives of those involved. Attachment is a partnership between doctors and nurses, each of whom will have well-established work patterns in an independent setting. Certainly nurses are likely to be aged over 40 and to have had a wide range of professional experience. The transition to the comparative intimacy of the team will make a variety of demands of all concerned.

The more we study this subject the more striking we find the similarities between nurse attachment to general practice and traditional concepts of courtship and marriage. There is good statistical evidence to support a suspicion of the durability and quality of "shotgun matches" (Registrar General, 1966). The same may be true of attachment schemes.

Many of the criticisms of attachment can be levelled at an inadequate period of preparation or "courtship," which is often notable by its absence. In many instances staff were attached without adequate definition of the part they were to play, and in the case of the health visitor often without sufficient understanding by the general practitioner of the importance she attached to her traditional work in preventive child care. The fact that only a minority of the health visitors we studied were involved in routine child welfare sessions in collaboration with the general practitioner to whom they were attached suggests that this particular work is still regarded by many general practitioners as outside the health visitor's province. When she still holds clinics of this type in local authority premises, this can only aggravate her sense of divided loyalties, particularly if she feels more competent in this field than the general practitioner to whom she is attached.

Preparation of the general practitioner for attachment must produce a doctor who appreciates the training, background, and functions of the staff attached, but because of the overriding importance of personality compatibility a trial period of informal association or "courtship" should precede attachment proper. The role of the medical officer of health or chief nursing officer as "matchmaker" at this stage is important in defining expectations. Equally important is follow-up by the medical officer of health or chief nursing officer when any difficulties can be identified and remedied, particularly if this takes place after the initial "honeymoon" period, when the novelty of attachment has subsided.

The concept of "the team" is still relatively new and there is a danger that success may be assumed too readily. Attachment when it works well appears to be infinitely preferable to independence. If the "community physician" of the future is to be an organizer and co-ordinator of community medical services the obvious place to begin is the "community team." It may be that the effort required has been underestimated by some medical officers of health. Changes in both medical and nursing education (Walker and Barnes, 1966; Wenborn, 1966; *Medical Officer*, 1969) will produce workers to whom the team approach is fundamental. The future of medical care in the community may depend on current medical officers of health creating the atmosphere in which this may develop.

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MEDICAL HISTORY

The Rev. Samuel Warneford, M.A., LL.D. (1763-1855)*

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Among the more notable past benefactors of medical institutions may be numbered the Rev. Samuel Warneford, an eccentric but highly practical philanthropist, who for 44 years was a country rector in the Cotswolds.

He came of an ancient but often impoverished north Wiltshire family, "distinguished for nothing in particular except its antiquity," said to date back to the twelfth century, whose country seat was named Warneford Place, near to the town of Highworth between Swindon and Lechlade. The house, once a stately Tudor mansion, had often been left empty and neglected. Both his father and grandfather were beneficed

clergymen of York, of no substantial means, but his mother inherited wealth from her father, a drug merchant in the City of London, and he himself married the daughter of a wealthy cheese merchant in Berkshire. Though he was a second son, his mother left most of her fortune to him, and he thus became a very rich man. He was born in 1763, and died in 1855, aged 92. He was ordained in 1790, seven years after leaving Oxford, and took the degree of LL.D. about that time. He held, for the rest of his life two livings, of which Bourton-on-the-Hill, Gloucestershire, was the principal, where he spent 44 years and where he is buried.

The *Dictionary of National Biography* states: "He decided to distribute his superfluous means in his lifetime by gradual instalments so that, as time went on, he might rectify errors and re-direct his charity." This bears the stamp of a generous but

* Communication to the West Midlands Physicians' Association in May 1968.

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cautious man who was determined that his benefactions should be properly used, and, as a long series of letters bears witness, he was meticulous and shrewd—in fact, a first-class businessman. This was something of which he himself was fully aware, and was even constrained to justify himself, reflecting that if he appears more mercenary than a good minister of religion should be he is only following the teaching of St. Paul. His money was given mainly to medicine, education, and the Church, and totalled at his death more than £200,000, a remarkable sum equivalent, perhaps, to well over £1,000,000 today.

As a child he was described as delicate and puny and thought not long for this world, though in fact he lived to his ninety-third year; at Oxford he was extremely shy and had difficulty in making friends “among the hot-blooded young men fonder of sport and taverns than their studies”; later he was described as reserved and precocious and having no glimmer of a sense of humour, a fact one might deduce from his correspondence. In later years he became something of a recluse, and the family described him as “buried in the country for years,” though it is questionable if a man who did what he did could be described as “buried,” and he is said to have “travelled vast distances inspecting all his good works.” It seems that he did not want the huge fortune he acquired and deliberately spent his life getting rid of it. The latter at any rate seems to be true, and he remarked frequently and rather morosely that, “doing good properly” involved a great deal of hard work.

Large Benefactions

His first large benefaction was to the Oxford Lunatic Asylum, completed in 1826 for £20,000, mostly by public subscription but having nothing for its endowment. It was this which he in large measure provided, to the tune of £80,000 over a period of 42 years. This institution acquired his name in 1843. It was expressly designed for mentally afflicted persons of the educated classes, “To cherish, protect and relieve with God’s blessing, and to cure those for whom, being above the condition of chargeable poor, the laws of this country have made no provision out of public money for their care and medical or moral treatment.” This first project probably derived from the fact that his wife, to whom he was said to have been devoted, died childless and insane three years after the marriage. He had been pressed to have her “put away,” but after inspecting several existing institutions for the mentally afflicted he was so appalled by the conditions therein that he insisted on keeping her at home until her death.

In 1831 he wrote to the management committee “that the wards for noisy or violent patients must be on the ground floor, separated from others, so as not to disturb them, but not so far away as to be at risk of neglect.” In 1832 he paid £1,000 for the erection of a 12-foot (3·7-metre) wall around the 9-acre (3·6-hectare) property, which still stands. The asylum was designed to take 80 patients at that time, who were to contribute according to their means.

The next major contribution to medical institutions was the hospital at Leamington Spa which bears his name, three-quarters of the cost of erection, which was £4,000, being given by Dr. Warneford. Completed in 1832, it took its first patients two years later. Its original title was the Warneford General Bathing Institution and Leamington Hospital. The central block remains unchanged today, and is still in full use after 136 years. Warneford gave and bequeathed further sums, totalling £10,000, for its endowment and for running expenses, which in 1840 were about £600 per year, and in that year he was so incensed by its extravagance, the excess of expenditure over income being £11 5s. 7d., that he threatened to withdraw all further interest in the establishment. In the original name “Bathing Institution” preceded “Hospital,” because at that time the hydrotherapy available at Leamington took precedence over any other form of treatment.

Christian Way of Life

Shortly after this he embarked on his campaign for the improvement of Queen’s College and the Queen’s Hospital, Birmingham, which he is described as having “adopted” and to which he donated £25,000 towards new buildings. One overriding purpose he had in mind continually over the years,

THE REVEREND DOCTOR SAMUEL WARNEFORD.
Rector of Moreton-in-the-Marsh and Bourton-on-the-Hill, Gloucestershire,
1807–1855.

amounting almost to an obsession, was the conversion of medical students in general, but Birmingham students in particular, to a Christian way of life. Dr. Warneford was convinced that medical students were a most godless body of men; “it had long been his painful conviction that they often fell into the worst errors of materialism, and their lamentable ignorance of the Gospel and means of salvation was a natural consequence.” So he took steps to impress a Christian character on the Birmingham Medical School, and in particular founded prize essays which were to demonstrate “the pathway of God’s wisdom, power and goodness as revealed by their anatomical and other studies.” The first such prize was awarded in 1839, the basic theme on this occasion being the venous valves. The dedication of this essay is worth reproducing:

To the Reverend Samuel Warneford LL.D.
who
amidst his daily labours of love
for the relief of bodily and mental diseases
and the
supply of spiritual and temporal wants
discovered new fields of exertion in schools
of physic
and untrodden paths of benevolence
in theatres of anatomy,
and by the institution of annual prizes
in the
Birmingham School of Medicine & Surgery,
and in the
Medical Department of the King’s College,
London,
encouraged
the Contemplation of the Divine attributes
under the concentrated rays
of revealed as well as natural religion
and by these means

endeavoured to stamp a Christian character
upon the studies of
Anatomy and Physiology,
to him
This Essay
The first attempt to carry into effect his pious
and benevolent intentions
is dedicated,
With great deference to his judgement & sincere
respect for his virtues.

A letter in 1840 says, "I am writing to settle the best mode of still furthering my views on making medical and surgical pupils good Christians, towards which I am endowing for £1,000 a spiritual pastor at the Royal School of Medicine and Surgery at Birmingham." He endowed similar prizes and a scholarship for medical students at King's College, London, still awarded annually, which was to include the compulsory subject of divinity, in which "no award for excellence in other subjects was to compensate for failure in Divinity." Warneford also contributed to the cost of erection of the original King's College Hospital, in Portugal Street, close to Lincoln's Inn Fields.

The theme of the religious education of doctors recurs again and again over the years. In 1838 he wrote: "What is said about the absorbing nature of a medical student's pursuits is but too true, and it is one of the evils which most requires remedy, it is this which narrows their minds and makes them bigots to low infidel views." He became more and more emphatic and, one might add, bigoted himself. "I do not forget that students who may remain in the Birmingham School only two years and who have much to study, must be limited in the time they can give to the study of Divinity; however, I cannot consent that the original motive which induced me to give £1,000 should be frittered away by concessions to expediency." There was much more to the same effect, and it becomes apparent that the authorities of both Birmingham and King's College, London, had been attempting to restrain his enthusiasm about theology in the medical curriculum because he said: "Even in the attempt to do good, Satan has his emissaries to interpose." Later, in another letter, he wrote in a tone of apparent despair that "there appears to be a *spell* against carrying into effect my wishes to make medical students good Christians." Birmingham, however, apparently improved, and in 1844 he said: "The exemplary conduct of the medical students affords hope that our most sanguine hopes may be realised."

Businessman

So much for him as a man of religion, but what of his business capabilities? In connexion with the Warneford Hospital, Leamington, he wrote in 1831 of his intention to call a special meeting, "To fix on the ground for the hospital, enter into contracts and prepare for works; plans and wards having already been agreed upon." A year later "he hopes the weather will permit a visit to Leamington, where he is to act the miser's part and make more use of his arithmetic than is consistent with the rules of ornamental architecture." At the Oxford Hospital he was met with plans for what he called "a most splendid gateway which would cost at least £150. Till our funds are abounding nothing should be laid out on ornament that could be used to reduce the weekly charges for the more distressed patients. Plain gateways must suffice for the present. I own as a calculating miser that a man of taste is my terror. A display of ostentation is far from my wishes, though there may be those who would, perhaps, consign me to my own Asylum." In 1848 he said he had had a "very favourable account of the Leamington Hospital, and the Asylum at Oxford has been highly commended by the Inspectors," and in 1849 he wrote: "Your report of the distribution of Prizes at King's College is a sovereign balm to my present ills, but *gout* has its pangs."

As to his other benefactions, they were distributed over a wide field— orphan homes, church schools, churches, and parishes over southern England, and they included endowments of the Bishopsrics of Nova Scotia, Sydney, Australia, and other charities in Africa, Canada, and New Zealand.

Frugal Ways

Anecdotes from family sources recorded in *Warneford, The Life and Times of Harriet Elizabeth Weatherell Warneford*, by Mary Gibson, add colour to the story and help to bring the man to life. Apparently he had no use for the idea that "charity begins at home." He says he denied "many painful appeals, particularly from female members of his own family, and rarely allowed himself to indulge in the exercise of private benevolence."

It is said that he was wont to travel in a shabby carriage drawn by a series of ancient horses always bought when they were already far gone in years. He did not abandon his bag-wig till long after they were out of fashion, and remained for ever self-conscious about his new-style side-whiskers. In that ivy-clad country rectory a hundred years ago, set on a hill with magnificent views over the Cotswolds, his study was spacious and had large windows, but rendered dark and stuffy by laurels and shrubberies outside, now cleared away, and lined with bookcases and files dealing with his charities. He allowed nothing to be disturbed and for years no one was allowed in to dust or clean. The windows were kept tightly closed on the hottest day and he always locked up on leaving. The rectory, though a fine building, was described by relatives as "threadbare." When one of the two unmarried sisters who lived with him died he complained afterwards that "his household did not then run with the smoothness necessary for continuing his charitable works." He does not seem to have been loved by the others members of his family, who were said to be hoping for "the detested Samuel's decease."

His last drive in the rickety old carriage was taken in October 1854, in his ninety-third year, to Cirencester to see his solicitor to discuss once again his Will. He continued to attend to his vast correspondence with the aid of his curate, but spent longer hours in bed and began to meditate on his past life; "I should have been kinder, I should have been more considerate and understanding," he was heard to whisper. On 10 January 1855, a bitter winter day with snow lying thickly over the countryside, Samuel, on his deathbed, was imaginatively described as "lying in bed like some small frozen bird with a tassel nightcap on his head. A steam kettle was dispensing Friar's balsam and there was a meagre fire in the grate giving out no warmth." His Will was read to him yet again; long and tedious with codicil after codicil; but none of his poor relations, including needy parsons, received a penny. He was, however, much loved in his parish.

Further Notes

Four notes can be added to bring the story of Warneford and his family up to modern times.

In 1915 Flight-Sublieutenant Rex Warneford, R.N.A.S., a collateral descendant and heir-apparent to the family seat in Wiltshire, was awarded the V.C. for bringing down a German Zeppelin airship raiding London, the first to do so.

The original capital sum of £10,000 for endowment of the hospital at Leamington was still intact in 1948, and was reserved for the benefit of needy patients.

At Bourton-on-the-Hill two houses given in trust by Samuel for a Sunday school have recently been sold for a sum more than adequate to provide a modern one, and there is still a Warneford Medical Trust in the village, which now provides pensioners with extra comforts, taxis to medical clinics, etc. Many such trusts survive and Samuel Warneford's charities live on.

Warneford Place, restored and partly rebuilt, still stands in its seclusion of lovely woodland with a lake and lawns, in March ablaze with daffodils.

I am indebted to Mr. T. P. Williams, Group Secretary, Warneford and Park Hospitals, Oxford; the Rev. W. E. Gladstone, Rector of

Bourton-on-the-Hill, Glos., for information; to Brigadier C. P. Prescott, of the Old Rectory, Bourton-on-the-Hill, for permission to see the rectory; and in particular to Mrs. Mary Gibson, née Warneford, for personal information, biographical details, and family anecdotes recorded in her book, *Warneford, The Life and Times of Harriet Elizabeth Weatherell Warneford*, published privately, Bournemouth, 1960.

NEW APPLIANCES

Group Captain R. W. POVEY, orthopaedic consultant, Royal Air Force, Aylesbury, Bucks, writes: A new system has been devised to provide a universal system of leg-splinting for use in hospital. It allows for simplicity in assembly; a comfortable, accurate fit; the elimination of the Balkan beam; and the transportation of the patient by any means, including air, at an early stage in treatment (Fig. 1).

FIG. 1.—Diagram of new splint: a, turnbuckle width adjustment; b, upper bars; c, adjustable interchangeable crutch pieces; d, adjustable castor pieces; e, hinge; f, bed-end support with adjustable roller and pulley; g, Collar'n'Cuff disposable groin ring.

The splint comprises the following features:

- (1) Two crutch pieces that are adjustable in length and interchangeable to accommodate all adult thigh lengths and to provide for right and left legs, the adjustment being made by two Allun screws.
- (2) The use of a soft replaceable ring of Collar'n'Cuff (made by Messrs. Seaton Products) to eliminate the hard, uncomfortable, and frequently soiled ring of the Thomas type splint.
- (3) Two long upper bars which are parallel to but above the line of the crutch pieces and maintain the integrity of the apparatus. They provide support for the leg piece and a means of applying fixed traction to the leg. They also provide for a pulley to allow the patient to practise knee movement.
- (4) The knee flexion pieces that allow the hinge to be accurately placed under the knee, free from obstruction that might occur when skeletal traction, either femoral or tibial, is used. They also permit fixed traction to be applied to the leg with the knee flexed.
- (5) A turnbuckle to allow easy adjustment of the splint width.
- (6) A bed frame that supports the upper bars and allows them to slide freely over a roller which is adjustable in height. This gives the patient considerable freedom of movement in the bed. Also on this are adjustable pulleys to provide weight-loaded traction. Large (and cheap) plastic pulley

New Leg Splint System

wheels are used which will carry the weight clear of the bed end. The frame, which is of the simplest construction, can be lashed to any bed having a bed end. Clamping

FIG. 2.—Splint and bed-end support in use.

devices are being made, though these will have to suit the individual beds used (Fig. 2).

- (7) Castor supports, which are adjustable in height and ensure that the splint is firmly applied to the thigh. Modern, freely mobile castors are used, and these enable the splint to move easily about the bed following the patient. By adjustment a tendency to internal or external rotation can be corrected, and the correct horizontal balance can be maintained when the patient is on a concave surface, such as a stretcher.

- (8) The splint is made in a collapsible form which will allow it to be packed flat in a sealed plastic bag. This makes storage and transportation easy and ensures that no deterioration occurs—especially in tropical conditions.

Development is proceeding to provide a lumbar universal support for use in severe hip and pelvic injuries when the use of a groin ring is not possible. One or two splints would articulate with this.

It will be seen that, as in the case of the Thomas, Hodgen, and Fisk splints, this splint can also be used on the balanced traction system, a Balkan beam being used if desired. It has proved highly satisfactory in the management of synovectomy of the knees, where early free gravity-eliminated movement is required.

It will also be seen that by eliminating the bulky groin rings two splints may be applied with minimal nursing inconvenience. This permits the patient to be carried on a standard stretcher and is important when considering long-distance transportation in aircraft and the manoeuvrability of the patient through and into confined spaces.

In this context a simple stretcher-end support has been constructed on which the upper bars are supported on rollers, replacing the roller on the bed-end frame. It facilitates the movement of the patient, but at the same time ensures that the splint remains and moves with the patient and not with the stretcher, which in transit is subject to considerable whipping movement. (Fig. 3).

I would like to thank the Director-General of the Royal Air Force for permission to publish this article, Air Vice-Marshal Mackenzie Crooks, consultant adviser in orthopaedic surgery, for his encouragement and help, and the workshops of R.A.F. Halton for their assistance.

FIG. 3.—Stretcher-end support.