

Clinical Records

result. Palliative treatment was instituted, with only fair results, and in *August*, 1932, two ivory implants were made into the left side only. Up to the present the left side is nice and moist with very little crusting. The patient has asked, on several occasions, for the other side to be done and one hopes to do so in the near future. (Up to the present, no implant has been made in both sides of the nose, in the same case.)

WEAVERS' DEAFNESS

By W. B. McKELVIE (Bolton)

THE following is a brief account of an investigation carried out in 1926 at the suggestion of the late Sir Thomas Legge.

One thousand and eleven weavers were tested as regards their hearing by means of the normal speaking and whispering voice, a distance of 14 feet intervening between examiner and examinee. Those found not to hear satisfactorily were submitted to a fuller examination of the ear. The nose and throat were also inspected and the results of the examination, together with details as to length of employment, previous medical history, previous work and family record were noted in each case.

The results of the investigation showed that out of the 1,011 weavers seen 246 (24.3%) had some form of deafness. Of these 68 (6.7%) suffered from nerve deafness and 178 (17.6%) suffered from other forms of deafness.

As regards the duration of employment, the percentage for all forms of deafness increased for each decennial period, while for nerve deafness no case occurred in under ten years of employment and the rise in the number of cases appeared to begin after twenty years of employment.

While these results do not take into account many fallacies, it is felt that they do show the existence of deafness among weavers due to other causes than the usual one of infection *vis à* the middle ear.

It is a common occurrence in the textile towns of Lancashire for people to explain their deafness (and loud-toned speech) by stating that they have worked for many years "in the mill".

The examinations were made in three mills in different places and no great divergence in the percentage occurrences of nerve deafness was found.

By analogy with deafness in other industries two of the most important groups of causative factors should be :

1. The damp, hot and dusty atmosphere of the mills.
2. The noises heard in the weaving shed.

H. Lawson Whale

As regards the first group it was found that acute and chronic suppurative otitis media are no more common among weavers than among the general population, considering the figures of Cheatele who found that 8·8% of 1,000 poor children examined by him had chronic suppurative otitis media. An examination of 35,000 candidates for the Royal Air Force revealed the fact that 5% suffered from the same disease. Of the weavers examined in our investigation about 7·5% had chronic otitis media or its sequelae.

All the weaving sheds visited were of the "humid" type. As regards the second group, that of the noises heard in the weaving shed, the visitor cannot but be appalled by the terrific din which meets his ears when entering a weaving shed.

Evidence and opinions went to show that the noise in the weaving shed was due to :—

1. The impact of the shuttles in the boxes.
2. The beating up of the slay.
3. The general vibration and movements of the various parts of the looms.
4. The transmission machinery, especially the hum of the belts.

That deafness can result from long exposure to noise has been shown by the animal experiments of Wittmaack, Siebenmann and Yoshii and by the work on boilermakers' deafness of Rodger.

Prevention.—In a skilled occupation such as weaving, it is not feasible for the sufferer to change his occupation as soon as he finds himself slightly deaf. The use of obturators, in view of Wittmaack's work on the transmission of noise by solid objects such as the flooring, is unlikely to be of use. Antivibratory footwear or mats have been suggested. Some time ago a loom working in a practically noiseless manner was shown at a Manchester textile exhibition. Such a machine would seem to be the best method of prevention of weavers' deafness.

I am indebted for much help in this investigation to Dr. Henry, H.M. Medical Inspector of Factories at Manchester, to Mr. F. H. Westmacott, and to the employers and employees at the three mills visited.

TWO UNUSUAL CASES OF FRONTAL SINUSITIS

By H. LAWSON WHALE (London)

THE following two cases, which were under my care simultaneously at the National Temperance Hospital, have certain features in common, and are worthy of record.

CASE I.—A.B., aged 28, builder, was struck on the forehead by a wooden plank eight years ago. In *November, 1932*, a swelling,