TABLE E.

	After Six Weeks on White Flour.	Sixth to Seventh Week put on Hovis.	After Seven Weeks on Hovis.
91	125+34	125	152+27
86	96+10	96	143+47
84	92+8	92	138+46
81	92+11	92	124+32
76	88+12	88	123+35
75	82+7	82	121+39
74	76+2	76	111+35
69	66-3	66	108+42
63	61-4	61	108+44
63	61+1	61	95+31
58	62+4	62	89+27
57	61+4	61	90+29
57	Dead		
52	52+0	52	76+24
50	50+0	50	72+22
48	Dead		
46	Dead		
42	Dead		
40	Dead		
40	Dead		
36	32-4	32	Dead.
34	Dead		
32	Dead		
1,020	+83*	1,070	480†

* Survivors increased 8 per cent. in six weeks; 8 deaths.

† Survivors increased 45 per cent. in seven weeks; 1 death.

rats have done well while the mothers (giving milk) were fed on Hovis flour and water, and have grown up strong and healthy on this diet after weaning. Wholemeal did not suffice for them. Thus Hovis flour and water has proved an adequate food for the milking mothers and for the young rats. These results show the great importance of the germ of which white flour is robbed.

Tables E and F show the effects on rats fed with white flour of a change to Hovis flour.

TABLE G.

	Twelve Weeks on Standard Flour.		Twelve Weeks on Standard Flour.
108	178+70	48	85+37
100	152+52	47	82+35
91	147+56	46	74+28
95	137+42	45	72+27
84	Dead	44	67+23
74	128+54	44	65+21
72	118+46	42	68+21
72	96+24	41	63+22
63	96+33	39	63+27
60	94+34	35	Dead
57	89+32	33	Dead
51	86+35		
49	85+36	1,385	755

Survivors increased 55 per cent. in twelve weeks; 3 deaths.

Table G shows the effect of twelve weeks on nothing but Standard flour and water.

External temperature plays a considerable part in these experiments. Flour-fed rats do comparatively badly in cold weather and well in hot weather, and this is particularly the case with those fed on white flour.

TABLE F.

	At End of Five Weeks of White Flour.	Fifth to Sixth Week put on Hovis.	At End of Six Weeks of Hovis Flour.
106	104-2	104	170+66
104	103-1	103	148+45
103	92-9	92	143+51
96	Dead		
87	Dead		
82	63-14	68	118+50
75	67-8	67	118+51
71	67-4	67	98+31
65	61-4	61	Dead
59	59+0	59	85+26
54	52-2	52	74+22
53	Dead		
49	Dead		
49	47-2	47	Dead
48	42-7	42	70+28
48	45-3	45	64+19
46	43-3	43	57+14
46	38-8	Dead	
44	37-7	Dead	
44	Dead		
43	Dead		
42	33-9	Dead	
42	32-10	Dead	
40	33-7	Dead	
38	Dead		
27	Dead		
1,220	-99	782	+403

On white flour 13 dead. Survivors decreased 8 per cent. in five weeks. On Hovis flour 2 dead. Survivors increased 51 per cent. in six weeks.

We have found we can make an extract from the offal of wheat which, added to white flour, makes it more adequate as a food. We hope to communicate particulars of this series of feeding experiments shortly.

REFERENCE.

¹ BRITISH MEDICAL JOURNAL, May 6th and June 3rd, 1911.

A CASE OF SEPTIC PNEUMONIA CAUSED BY A HATPIN.

By L. C. V. HARDWICKE, M.B., CH.B. EDIN.,

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THE case here described is interesting medico-legally and because it illustrates how a sharp-pointed foreign object of considerable length may remain in the body and travel through various organs for several weeks before causing grave symptoms.

A. C., a male, aged 26 years, who had had no previous illness, was admitted on August 27th, 1908, and seen by me immediately. He said that he had had acute pain between his shoulders for three weeks and jaundice for three days. He looked ill, was jaundiced and drowsy, and complained of sharp pain at the inferior angle of the right scapula. There was nothing abnormal in the heart, lungs, or abdominal organs except some liver tenderness. After a good tea and sleeping for five hours he developed symptoms and signs of acute pneumonia in the lower lobe on the right. No rigors, sweats, vomiting, sputum, or epigastric pain were observed.

Later the patient became very weak and quietly delirious, the pulse bad, and the temperature oscillated. On August 30th signs of pneumonia appeared in the remainder of the right lung and the lower lobe of the left. Death occurred on September 2nd.

Jaundice preceding pneumonia is very rare; liver abscess is sure to have given increased dullness and the hepatic tenderness would have been more marked. The diagnosis of jaundice and pneumonia following influenza was favoured by the absence of an appreciable leuco-

cyosis. The real cause was not suspected. The widow appeared frightened and nervous, and a *post-mortem* examination was insisted upon.

Necropsy.

Both pleural cavities contained some little serous fluid, more in the right than left; there was recent pleurisy over both lower lobes, very extensive on right. Both lungs contained numerous areas of consolidation, and those in the right lower lobe were breaking down into pus and forming abscesses. Projecting upwards, backwards, and outwards from the liver through the diaphragm and diaphragmatic pleura on to the lower surface of the right lung was the pointed end of a broken hatpin over 4 in. long.

The heart muscle was a little flabby and pale. The liver was congested and protruding upwards, backwards, and to the right from the right lobe through the diaphragm was the piece of hatpin. A track was traced from where the pin was found in the right lobe, through the Spigelian lobe to the stomach. In the stomach was a small aperture just below and to the right of the cardiac orifice communicating with the track in the liver. On the left of the fundus, high up, opposite the aperture, was a scar showing black staining, and here the stomach had become adherent to the spleen. The spleen, which was congested, showed two darkly stained scars, one on the gastric surface where adherent to the stomach, and the other on the diaphragmatic surface where some omentum had interposed itself between the spleen and the diaphragm and sealed over the scar on this surface.

The diaphragm on the right side was adherent to the eighth and ninth ribs in the mid-axillary line, and there, obliquely in the intercostal muscles, fascia, etc., in the eighth space, was a track healed by fibrous tissue. There was a small depressed scar on the skin over the lower border of the eighth rib, just in front of the posterior axillary line on the left side.

The brain and kidneys were congested, but there was no abscess except in the lungs, and no peritonitis.

The track, except through the spleen, was easily identified by darkly-stained scar tissue. The pin had

probably broken off on the lower border of the eighth rib and travelled downwards, inwards, and forwards through the intercostal tissues and the parietal pleura, just missing the left lung, the diaphragmatic pleura, the diaphragm, and spleen, the stomach just below the cardiac orifice, the Spigelian lobe of the liver, and, finally, the right lobe of the liver, where it was found projecting on to the lower lobe of the right lung. A slight curve at the broken end accounted for the course taken—practically a semicircle. Infection evidently travelled to the right lung from the stomach, and not from the skin surface. The lungs probably were not, or only just, affected on admission.

At the inquest the widow said that on May 17th her boy, 2½ years, was playing with a hatpin, and left it on the bed, that her husband lay on it, and it went into him. She also said that the following morning her husband went to St. Mary's Hospital, where the pin was removed. After the funeral the widow was arrested and confessed that in a fit of passion on the evening of May 17th she had attacked her husband with a hatpin, which penetrated his side and then broke off.

It is interesting to note: (1) That there was little discomfort until eleven and a half weeks after the accident—probably not until the pin reached the stomach, and then, although the stomach must have been considerably "irritated," there was no vomiting before or after admission; (2) that there were no abscesses in the liver, and very little inflammation along the track; (3) the way one of the scars on the spleen was sealed over by omentum; and (4) the absence of staining in the spleen.

In conclusion, I wish to thank Dr. Maurice F. Squire, the Medical Superintendent, for his advice and for doing the autopsy with me.

SEVENTY-NINTH ANNUAL MEETING

OF THE

British Medical Association.

Held in Birmingham on July 21st, 22nd, 24th, 25th, 26th, 27th, and 28th.

PROCEEDINGS OF SECTIONS.

SECTION OF ANATOMY AND PHYSIOLOGY.

Professor T. H. BRYCE, M.A., M.D., President.

PRESIDENT'S INTRODUCTORY REMARKS.

THE President said: The privilege is accorded to me, by the statutes regulating the business of the Sections, of occupying fifteen minutes with some introductory remarks. I think it will meet your view if I curtail what I have to say into a briefer space. In the first place I must bid you welcome to our deliberations. It is a matter of regret to us all that Professor Peter Thompson is not with us to-day. I have received a letter from him conveying his regrets at his enforced absence, and his good wishes for the success of the Section. We cannot but feel that his absence is a serious loss to us on the anatomical side, and I think I should express your feelings if I were to convey to him our sense of this, and our hopes that his health will soon be completely restored.

The association of anatomy and physiology in one Section is, of course, only a matter of convenience—but at the same time it expresses the co-ordinated importance of the two branches of study, and it suggests a number of subjects for reflection. I wish very briefly to refer to two of these.

The process of specialization has necessarily tended to separate us to an increasing extent; we have each now our separate journals, and so forth. It has become impossible for us to keep in touch with advances in the science other than our own except in a very general way, and this is to be regretted from the teaching point of view. If one is to judge by what one sometimes hears and reads the physiologist is not always in sympathy with the methods of anatomical teaching which prevail. With many others he questions the value, from the general educational standpoint, of some of the detail which the medical student is supposed to have to master. Without prejudice to the fundamental importance of anatomical fact in the arts of medicine and surgery, I think I may say that we, at least I can speak for myself, are ready to concede that a considerable amount of the time-honoured detail of the textbooks, which are not arranged on a selective principle, may be generalized without loss. In the very congested state of the medical curriculum there is increasing need for co-operation and co-ordination in the work of the two departments.

My other point refers to the teaching of histology. The dissociation from anatomy of the practical teaching of microscopic anatomy, which prevails in practically all British schools, was and continues to be a misfortune to the anatomical department. Looking to the great expansion of physiology, I would suggest that perhaps the time has come when the theoretical and practical teaching of the ordinary morphology of the tissues might be restored to the anatomical department. The facts and methods of histology are essentially anatomical. There is a considerable amount of overlapping under the present arrangements. I should like to see such an arrangement as would make it possible for the student to study simultaneously the macroscopic and microscopic structure of the organs he handles. I do not mean that no histology should be taught in the physiological department, but I would suggest that it should be restricted to histology in its physiological relations.

Speaking from the point of view of an anatomist, I am specially interested in this in connexion with departmental research. It is incontestable that teaching