closing of the cavity. Here the same thing is shown from a dog. The large portion of omentum which has attached itself to the under surface of the abdominal wall is quite curious. The wound was left with the skin, fascia and muscles only united. Great care was taken to avoid the peritoneal edges; and then the peritoneal coat of the abdominal wall is completed by a portion of the omentum coming and adhering there. I do not think there could be a more complete proof of the propriety and necessity, in all cases of wounds of the abdominal wall, of bringing the two peritoneal edges accurately and closely together.

In the few minutes which are left before the clock strikes, I will show a very convenient form of lamp for throwing light upon any dark spot in the abdominal cavity, when it is difficult to find some small bleeding vessel. By concentrating such a ray of light as this portable lamp of Collins's gives upon it, it is often easy to find a vessel which cannot otherwise be found. In practice, this becomes of very great use.

Then, supposing one wishes to use the cautery, this is the well-known instrument of Paquelin, called a "thermo-cautère", and if there should be a return to the use of the cautery in ovariectomy, this would be the most convenient instrument one could use. It is simply a hollow platinum cautery first heated in a spirit-lamp, and then, by sending a stream of benzoline-vapour through the platinum end, a dull red heat or white heat can be kept up and maintained as long as the surgeon wishes it. Irons taken from a fire are clumsy. Copper cauteries are less liable to rust and scale off than iron; but platinum has the very great advantage of not rusting, and also the advantage that an assistant can, by working these bellows, keep up any degree of heat required, and the surgeon can use his cautery as long as he pleases. There is one little imperfection in the instrument: there should be some fastening to secure the plug in the bottle. If one use the bellows a little too forcibly, the air accumulates in the bottle rather faster than it passes through the tube, the plug flies out of the bottle, and the cautery cools just at the time when it is required.

ON CHANGES IN THE FORM OF THE CHEST RESULTING FROM LATERAL CURVATURE OF THE SPINE:

WITH ESPECIAL REFERENCE TO THE DIAGNOSIS OF PULMONARY DISEASE.

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SOME degree of lateral curvature of the spine is notoriously very common in persons of all ages and of both sexes. With this lateral curvature of the spine there is usually associated an unsymmetrical conformation of the chest, which is very likely to be misinterpreted. Take the case of lateral curvature with the convexity of the curve in the dorsal region to the left: the vertebræ are rotated on their axis, the left transverse processes being turned somewhat backwards, and the right forwards. The result of these changes in the vertebral column will be elevation of the left shoulder, with relative lowering of the right, greater convexity of the ribs and of the chest-wall on the left side behind, with lessened curve of the ribs and flattening of the chest on the right side. In front, the relative convexity and flattening are reversed; the ribs and the chest-wall are seen to be flattened on the left side, and more convex and rounded on the right side. These changes in the form of the chest are represented in the diagram.

Now, a careless or an inexperienced observer is very likely to misinterpret these appearances. The flattening on the right side behind may be mistaken for the unilateral contraction of the chest which often results from an attack of pleurisy, while the flattening on the left side in front beneath the clavicle bears a striking resemblance to the depression of the chest-wall, which is frequently associated with chronic pneumonia or a tuberculous deposit at the apex of one lung.

Another noteworthy phenomenon is this: that, when the chest is unsymmetrical in form, one side being more arched and prominent than the other, the sound elicited on percussion is often unequal and of different pitch on the two sides, quite irrespectively of any physical change in the contents of the chest; and it will often be found that percussion on the flattened side of the chest elicits a louder and a clearer note than on the other side. The probable explanation of this is to be found in the fact that the straight ribs, when percussed, yield to the stroke and vibrate more freely than the more arched ribs. The force of the blow is diffused over the arched rib, upon which it produces scarcely any change of form and but little resonance. It is obvious that, *ceteris paribus*, the resonance on percussion bears a direct relation to the degree in which the walls of the chest bend and vibrate under the blow. Thus percussion over an intercostal space elicits a

louder sound than percussion over a rib. The chest of a young subject with elastic costal cartilages is more resonant on percussion than the chest of old age with ossified cartilages; and, in accordance with the same principle, the unsymmetrical chest associated with lateral curvature of the spine is, as a rule, unequally resonant on percussion, the flattened side being usually more resonant than the other.

Transverse Section of Chest, showing change of form resulting from Lateral Curvature of the Spine, the convexity of the Spine in the Dorsal Region being towards the left. The continuous line indicates the normal form of the Chest; the dotted lines show the deviation from the normal form, resulting from the Spinal Curvature.

It is sufficiently obvious that inattention to the various results of lateral curvature of the spine which have here been referred to may lead to serious practical errors. I have seen several cases in which flattening under one or other clavicle, the result of spinal curvature, had been erroneously attributed to a tuberculous or pneumonic deposit in the apex of the lung. We have seen, however, that the flat side in these cases is usually more resonant than the other; while, on the contrary, when the flattening beneath the clavicle is the result of an inflammatory or a tuberculous deposit in the apex of the lung, there is usually diminished resonance over that part.

I saw lately a gentleman fifty years of age, who for the last twenty-five years has been, as I think erroneously, supposed to be suffering from tuberculous disease of the lungs. During that period, he has been troubled with winter-cough and expectoration; but he has usually been free from cough in the summer. He has several times had slight hæmoptysis; but he does not lose flesh, and there is no family history of tuberculous disease. He has a large barrel-shaped chest, with very little thoracic movement in respiration. He is round and high-shouldered, the left shoulder being higher than the right. There is lateral curvature of the spine, the convexity in the dorsal region being towards the left. With this, there is the usual unsymmetrical chest, the left side being rounded at the back and flattened in front, while the right presents the reverse condition. The flattening under the left clavicle is, at the first view, highly suggestive of a deposit in the apex of the lung; and for this supposed deposit he had been perseveringly applying iodine. But then it was to be observed that the resonance on percussion beneath that clavicle was decidedly greater than over the corresponding part on the right side; and, while the respiratory and vocal sounds beneath both clavicles were normal, there were moist and loose râles over both lower lobes. I inferred that the case was one of emphysema with recurring winter bronchitis, and that there was no evidence of tuberculous disease of the lungs. I think, too, that more than one eminent physician, who had pronounced him tuberculous, had been misled partly by attaching too much importance to the hæmoptysis, which is a very common result of emphysematous bronchitis, but mainly by misinterpreting the flattening beneath the left clavicle.

I saw lately a young lady who, to her mother's great alarm, had been supposed to have a tumour in front of the chest on the right side. There was lateral curvature of the spine, the convexity towards the left in the dorsal region; and with this there was the usual unsymmetrical chest. There was but little subcutaneous fat, so that the ribs could be plainly seen and felt; and, in addition to the general roundness of the chest beneath the right clavicle, the second costal cartilage was rather more prominent than the third. This was the explanation of the supposed tumour in front of the chest.