

monly in girls at or after puberty, linked with ovarian or spinal irritation. It is clear, then, that cough has various causal associations.

The importance of reflex cough need not be considered here; nor yet the means by which it may be relieved. In all reflex actions the bromides suggest themselves at once. If the exciting cause can be dealt with, then the resultant cough is relieved.

It is rather the intention here to consider cough from its clinical and therapeutic point of view, and to see what indications it furnishes us for treatment. For instance, in "heart cough," *i. e.*, where the cough—a hard dry cough—is set up by congestion of the pulmonic or lesser circulation by some dam or block at the mitral ostium, sedatives are most undesirable.

Such cough is most commonly found in a young girl with a mitral lesion. One such case I well remember when the resident medical officer of the Leeds Public Dispensary. The girl, a child of twelve, had a mitral regurgitation—an injury inflicted upon previous to her coming under my notice. Digitalis and iron improved the general condition, and with it the amount of cough; but still the child, a bright neural creature, coughed considerably. She ceased to attend, but some weeks later her mother came and made a frank confession to this effect: "Doctor, I thought the girl ought to have some cough medicine and when I asked you for it, you always refused to give her any. One day I came when I knew you would be out, and got one of your assistants to grant me some cough stuff. It acted like a charm; but she soon fell off and lost her appetite, and could not get about; and now there is dropsy in her ankles. She is so bad I want you to do what you can for her." Appropriate treatment soon restored the child to her ordinary condition; but her mother did not hanker after cough medicine after this experience. This case illustrates vividly the disastrous effects of allaying the cough when due to pulmonary congestion. For a little time it gave relief, but the after condition was worse than the first. So much for the indication afforded by the cough under one set of circumstances, the case just mentioned by no means standing alone.

The consideration of "useful" and "useless" cough may now engage our attention. It is a matter involving the greatest thought, and well deserves our best consideration. We will take cough in bronchial cases first. There is in the early stages of acute bronchitis much useless cough, set up by the dry mucous membrane, and the means for its relief have been set forth in a preceding article ("Bronchitis, Acute and Chronic"). Then it was said there existed no particular objection to opium, which gives great relief. But in such cases the sedative is combined with other agents of a relaxant character, as tartar emetic or aconite. As soon as free secretion comes the cough changes its character. It is no longer the dry harsh, shaking cough of ineffectual effort, raising nothing, but be-

comes the less painful, truly expulsive cough of successful effort. Now, what we are required to do is to give stimulating expectorants, and so help and improve the character of the expulsive cough. There is usually at this point no indication for opium, and none is required unless it be a little at bedtime in certain cases.

It is rather in bronchitis with little expectoration and much bronchial irritation that the question of decision taxes our best mental energies. In some cases the rest at night is broken by irritant cough, and then the question arises of the lesser of two evils. If the opium arrest the secretion, and so render it tougher and more difficult to get up; if the opium brings lethargy to the liver, impairing the appetite, and locking up the bowels, still it gives the patient rest. Consequently it may become necessary to administer it. But it should be given with benzoic acid in compound squill pill and a little podophyllin or watery extract of aloes to counteract its undesirable effects in the alimentary canal. And by such combination no doubt the maximum of good with the minimum of bad effect can be secured. Number of chronic bronchitics under my father's professional care took such a pill every night for years without apparent injury, while it added greatly to their comfort. (I refer to my father's experience in these cases because I served under him and saw his practice, my own experience of general practice being but short). But granting all this, the less opium in diseases of the respiratory organs the better—as a broad rule. Sometimes some chloral, or bromide of ammonium with tincture of hyoscyamus, may seem indicated rather than opium, or even camphor may be the best agent to employ in certain cases. But, in a general way, opium (in such pill-combination as has just been suggested), with some alcohol at bed time as a "night cap," *i. e.*, whiskey or brandy and hot water, taken on getting into bed, is the best practice with chronic bronchitis. One great matter there is in such cases, never to be lost sight of by the patient, and that is to avoid passing from a warm sitting-room to a cold bed-room; the bed-room should also be warm. Another is to have the bed warmed by the old-fashioned warming pan, or perhaps better still, by a hot water bottle, which can be pushed down to the foot of the bed (so as to keep the feet warm) when the patient gets into bed. This matter of an equable temperature is very important, and many bronchitics toast themselves well before going upstairs to cold, unwarmed bedrooms, where they cast off their day clothes, don a cold night shirt or gown, as the case may be, then kneel down and say their prayers, and get into a cold bed. It is needless to say that no medicinal course can be successful in a case where this goes on.

Important as is the matter of cough and its indications for treatment are in chronic pulmonary phthisis is even still more important. There is the cough in the night breaking the sleep, there is the cough in the day shaking the sufferer; both ob-