cooking was equally skilful. I taught this woman how to make coffee, and her husband can now go into the hay-field without any difficulty. When a patient is told by a physician that he must diet, he goes on the theory that he must starve himself. The doctor does not tell him what to eat and what not to eat. And here we err. There are plenty of good books on the market on dietetics. Buy them, inform yourselves, then give your patients definite rules as to what to eat and what to avoid.

DR. C. G. KERLEY, New York: Those of us who have seen much of life among the poor people in any large city will understand the truth of Dr. Sill's statement regarding their ignorance. I have been in dispensary and hospital work for twenty-two years, and I am impressed with the fact that it is not that these people have not enough money, but that they have no idea of what constitutes nutritious food; and children are not fed with the idea of body-building, but merely of satisfying the appetite. The mothers are not lazy, they are untaught, and that is why they adopt a makeshift diet and do the thing that is easiest. If the physician takes the trouble to tell the mother what to do she does it. It is the primary function of the physician to instruct people how to live. That may be done through organizations of different kinds. At present there is an organization in New York City which will give a "child-welfare exhibit" in November. This exhibit will show educated people the conditions that exist among the poor, and it will be made attractive by object lessons and demonstrations in order to draw the poor and show them the results which may be achieved by right living. By that exhibit a great deal will be accomplished. It will inform the best class of people how the others live and let the ignorant be taught what constitutes proper living.

DR. S. W. KELLEY, Cleveland: Just a word or two on the subject of meals, etc., for the child in school. The plan has, of course, its different sides, the question of pauperizing, and all that. We began with free schools and then free books, in some places free shoes, then free meals, free doctors, free nurses, free dentists, and nearly every possible necessity for the child in school, until the tendency is to take the child out of the parents' hands too much and leave the parents nothing to do but to bring the child into the world and turn it over to the State for its maintenance as well as for its education.

I hope that this work as it is now carried on is only a transitional stage, made necessary by the influx of ignorant and careless parents. I do not believe in letting the child suffer in the meantime. It must not be allowed to starve or to go unclothed while getting its education, but the parents must be educated in their duty as parents, and the coming generation of parents must be better informed and more attentive in their duties as parents. I believe that ultimately the duty of school boards will be confined to education. I think that they are outside of their proper function in furnishing physicians, nurses, dentists and food to school children. That, if temporarily necessary, can be carried on by other organizations. Of course, I believe in medical inspection, but school boards should confine themselves to education, even if that includes the education of the parents in many ways. The school authorities can call to their aid and cooperation other authorities and organizations, such as the juvenile courts, the humane societies and the visiting nurses associations. For instance, in the matter of meals the social settlement workers can see that the child gets well-prepared meals at home. In illness or malnutrition the physicians can instruct nurses and the nurses working among the people can carry out these instructions.

DR. CHARLES A. CATTERMOLE, Boulder, Colo.: I want to explain a plan that is followed in the West. Dietetic errors are not so common in the West as among the people of the cities. The method we have adopted is to teach the girls in the high school the method of preparing food. They are taught cooking and buying of food in the market, and they cook and serve it in a proper way and get up a meal for the school board or a committee. In the cities children live on candies and prepared foods or go without breakfast.

MINERS' CONSUMPTION

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Miners' consumption is a term used by miners to designate emaciation associated with anemia, general weakness, shortness of breath and occasionally palpitation. It is distinctly a layman's term for a general condition which may be due to a variety of causes. Whoever has observed a large number of miners must have been struck with the fact that the majority are pale and thin, and that they present the facies of chronic dyspepsia. A low state of health among miners is so prevalent and the use of the term "miners' consumption" so general that the subject merits the serious attention of the medical profession.

One does not have to look far for causes of ill health among the miners. Most mines and mining towns are without any sanitary measures whatsoever. In the mine urine and feces are disposed of promiscuously. The miner's home is situated anywhere. The outhouse is nearly always on the hillside above the home, and of course the well below. The women and children seem to thrive regardless of filthy practices, however, so we must look into the mine where the miner works for the direct cause of his condition.

According to the returns of the Twelfth Census there were 528,822 persons in continental United States reported as "miners" in the year 1900. Of this number 344,205 were reported as coal-miners; 52,024 as gold-miners and silver-miners, and 132,593 as miners not specified.

Analyses reported by the Technological Division of the U. S. Geological Survey show that the atmosphere at the face of the coal in the mine contains nearly always traces of ethane, methane and carbon monoxid gases. In the ordinary management of a mine means are taken to detect these gases before they are present in such a dangerous degree as to become inflammable. Efficient forced ventilation will usually remove the gases in sufficient quantity to minimize the danger of an explosion, but at the face of the coal where the miner is working, there will always be traces of the above-mentioned gases. The stronger the ventilation, the greater the tendency to exhaust in the rooms and blind entries, with greater liberation of gases from the newly made cuts, boreholes, and broken coal. In just what way the deleterious effects of ethane and methane are brought about when inhaled in small quantities over a long period we are not prepared to say, but we do know that carbon monoxid has the property of uniting with the hemoglobin of the red blood-corpuscles to form a rather stable compound, and that it is not readily replaced by oxygen.

In mines where dynamite and other nitroglycerin explosives are used we have another source of poison. In such explosives the nitroglycerin is mixed with inert matter. As a result of an explosion the inert matter is blown into the ore or coal. Adhering to the particles of this inert matter are small amounts of nitroglycerin which have been disseminated without entering into the detonation—being firmly fixed to the particles of the menstruum like so many tablets of nitroglycerin. Later this dust containing small amounts of nitroglycerin is inhaled

during loading or shoveling, and, as every physician knows, the most efficacious way of administering nitroglycerin is to dissolve the triturate in the mouth. Another way of absorbing this poison is through the skin. Hence, these miners complain of headache, palpitation and nausea. Sometimes the men working on the tipple out in the open complain, too, as they breathe this dust when the cars or wagons are dumped.

During the past year Congress passed a law establishing a Bureau of Mines on account of the great number of miners killed or maimed annually as a result of a lack of safety devices. It may be opportune for the physicians to make some effort to better the condition of the miner from a hygienic and sanitary standpoint.

If in one of our naval ships we did not have elaborate systems of ventilation and did not make careful tests for the least increase in carbon dioxid gas for the several hundred men confined below—if we did not prohibit promiscuous expectorating, urinating and defecating, what a deplorable ship and state of health we should have!

It is no less important to have a clean, well-ventilated mine for the several hundred men working in it. The mere fact that the filth is hidden in darkness is no excuse for permitting a lack of sanitary precautions which we would not countenance one moment in the open light. We should provide our mines with better ventilation and more experts capable of analyzing the air.

Physicians in mining towns are without authority. It seems as though it might come within the province of this new bureau to make rules in regard to sanitary measures outside the mine as well as inside. Without chronic gas poisoning, typhoid, tuberculosis, hookworm, chronic nitroglycerin poisoning, and other preventable diseases, as well as fleas and chiggers, perhaps there would be no "miners' consumption."

Some physicians jump to the conclusion that the miner has general pulmonary fibrosis (anthracosis). As a matter of fact, the miner of to-day inhales very little dust, much less than the coal-handlers outside inhale, and he does not have evidences of catarrhal inflammation of the respiratory tract to the same degree as the men working in coal dust, who undoubtedly have anthracosis.

Other physicians account for the miner's pallor by the lack of sunshine, without considering real anemia. Many men have continued to work in dark but well-ventilated places other than mines for many years without developing anemia or marked pallor.

It is our duty to conduct some serious investigations in regard to the health of our miners. We should have more data at hand obtained from blood-examinations, post-mortem examinations, air analyses and other examinations which may give us exact information.

FATAL GUNSHOT WOUND

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Oct. 21, 1910, I was called to see a boy about 10 years of age, who had been accidentally shot by a .44 caliber rifle, in the hands of a younger brother. The bullet entered the knee-joint from the anterior side, just internal to the patella, and passed completely through the joint, severing the popliteal artery. I arrived about ten minutes after the accident had occurred, but the loss of blood was so great, that the patient lived but a few minutes, never having regained consciousness. This emphasizes the necessity of instruction in the public schools regarding "first aid to the injured."

AXIS TRACTION HANDLE FOR OBSTETRIC FORCEPS

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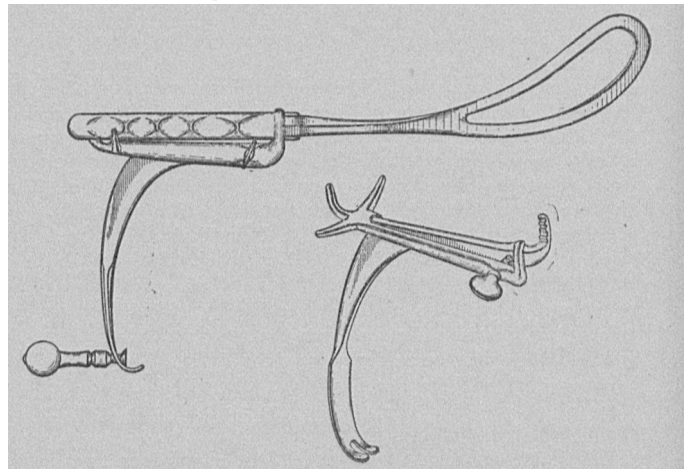
The illustration shows a handle that can be readily and quickly attached to any obstetric forceps thereby making the latter a complete axis traction forceps, possessing the following advantages:

1. It is light, simple in construction, having only three parts, and very easy to apply to any forceps handle when axis traction is required.



Axis traction forceps. The figure at the top shows the handle attached to the ordinary obstetric forceps. Below on the right is a view of the handle detached.

2. It prevents the lock of the forceps from slipping and at the same time does not hinder the forceps blades from being opened or closed at the wish of the operator.

3. The handle alone is sufficient for most of the axis traction cases, but when a great amount of traction is required a "T" or cross-bar can be attached through the slot in the lower end of handle, making a larger grip.

4. This handle with the ordinary forceps that is found in the obstetric bag of every physician will prepare him successfully to terminate cases demanding a high forceps operation.

WARNING AGAINST THE INDIA-INK METHOD FOR THE SPIROCHÆTA PALLIDA*

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PITTSBURG

Since recognition of the *Spirochæta pallida* as the probable cause of syphilis, now five and a half years ago, the staining methods, as has been said, are almost as numerous as the investigators who have studied it. Out of the many, there is one which has of late been especially prominent. I refer to the India-ink method first recommended by Burri,[1] and since by a number of other investigators.

This method, which consists in mixing the serum with diluted India ink on a glass slide and allowing it to dry in the air, is so easily carried out and requires so little technic, that its use, sooner or later, would have become quite universal. Recently, I used this method on a number of occasions, and I desire to relate my experience with it.

* Presented at the clinical and pathologic meeting of the Allegheny County Medical Society, Oct. 18, 1910.

1. Burri: Deutsch. med. Wchnschr., 1910, No. 38, p. 1762.