of the schools are appalling, especially with reference to the disposal of excreta. The school house should be in all things, and especially in sanitation, an object lesson to the whole community. In many sections it is the social center and from it and the village church radiate whatever morality and civilization is to be found in the "settlement." What a commentary then on sanitary enlightenment must some of these school houses present! How necessary a regular medical and sanitary inspection. Nay, more, how necessary that the parish priest or parson should co-operate with the medical inspector and periodically deliver a salient sanitary sermon on soap. And reference is made not only to negro schools, the majority of which like their homes are unspeakably filthy and unsanitary, but to many town and rural white schools that clearly indicate by their sanitary laches that the principal, the patrons and the school directors are five thousand years behind the times, not having progressed in the matter of sewerage disposal as far as the ancient Hebrews in the days of Moses, who obeyed the divine injunction recorded in the sixth chapter of Deuteronomy where the great sanitarian and law giver warned them that "The Lord thy God walketh in the midst of thy camp to deliver thee. . . . Therefore shall thy camp be holy that he shall see no unclean thing and turn away from thee."

Dr. Flaunagan (closing): The wide gap between the results obtained from the inspection of rural and city children, to the tremendous advantage of the city child, must be influenced considerably by unknown factors, differing standards of inspection will doubtless account for some of it.

The fact is, however, that the country child is at a standstill. His defects remain defects to the end of the chapter, while earnest effort is being made to locate and correct those of the city child. The ultimate result of this takes no prophet to foresee. Practically every country child has suffered the handicap of infectious disease. In five thousand country children I found only one over twelve years of age who stated that he had never been sick with any contagious trouble; and I suspected him of lying while three-fourths had had at least four.

I am sorry there are not more general practitioners here, for this is a matter for the initiative of the country doctor. He should take more notice of the rural school. Under present conditions he is not treating his community right to neglect it. The little folks are his responsibility before they take their beds as well as after. Let him as a stimulus to his understanding go to the nearest one-room school and stand the children by ages up in a row and look them over, without attempting inspection in detail. Then go to the nearest city and repeat the experiment. The result will be an eye-opener, and as an honest man he must go home, put on his thinking cap and get busy.

SOME OBSERVATIONS AND SUGGESTIONS RELATIVE TO MUNICIPAL SANITATION.*

By W. H. ROWAN, M.D.,
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Board of Health,
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The development of a system of municipal sanitation in an average state, such as Mississippi, should be of more importance than a mere generalization of health principles without practical application, therefore I shall speak about things with which I am familiar.

Five years ago our state maintained a board of health in name only—examining board would have been a better name for it, that being its chief function. It met twice a year, examined numerous unqualified applicants for medical license, elected county health officers and went home. The secretary drew a salary of \$500.00 a year to keep a poorly equipped office, along with that of his own. There was no laboratory, no bureau of vital statistics, no epidemiological work, no department of municipal sanitation, and withal practically no records and no appropriation.

Perhaps this condition would exist today had it not been for the advent of the Hookworm Commission, whose money with its men and educational propaganda has brought to the people, and to our legislators, a health conscience. This awakened conscience and its attendant opportunity for the legislature to discharge a duty, resulted in an increased appropriation. Through this a substantial and highly useful laboratory has been equipped, a splendid bureau of vital statistics has been built up, and municipal sanitation was established as aid to the already established system of rural sanitation.

Under an old law, fortunately passed in

*Read in Section on Public Health, Southern Medical Association, Eighth Annual Meeting, Richmond, Va., November 9-12, 1914.

yellow fever days. at a time when health laws and doctors looked good to the people, the State Board of Health is permitted to pass reasonable regulations for the control of infectious and contagious diseases; also, the violation of these regulations was made punishable by a fine or imprisonment when guilt is established before any magistrate, judge or mayor. Immediately on the establishment of the department of municipal sanitation, suitable regulations were passed, governing the keeping of public service places, such as dairies, markets, bakeries, hotels, restaurants, fruit stands, railway stations and coaches, schools and jails. These regulations have been amplified from time to time, until now all phases of public health work are fairly well covered, the more recent additions being those governing privy construction in town and county, and the destruction of fly-breeding places. The passage of these strikes right at the root of our greatest health question—the control and disposal of human feces, and were passed only after due consideration for proper enforcement.

The legal force of these regulations has been uniformly maintained by the courts to the extent that in the prosecution of nearly 1,500 violators, conviction has been comparatively easy in nearly every instance. In one-half day forty-two violators were tried, convicted and fined without a hitch.

In one instance a railroad was fined \$50.00 for sweeping a coach in the presence of passengers; the attorney appealed. The commissioner said, "All right, if you want to appeal, we will make it worth while, so your fine will be \$500.00." Within a few days the vice-president of the road decided to withdraw the appeal, and paid his fine. Since then that road has employed an inspector of its own to see that regulations are complied with.

So I would put down as the first requisite for an intensive sanitary campaign the fact that the State Board of Health must be empowered by the legislature to pass and enforce regulations. The old nuisance law, the moss-covered pure food law, and the decrepit

anti-spit law have never served any very useful purpose, and are absolutely inadequate for modern health betterment.

The only charge against the efficiency of the regulation as compared with a code law lies in the fact that a regulation must be generally promulgated, and ignorance of such regulations is a good plea in a court of justice. Precedent set by the supreme courts says that any code law, the understanding of which requires technical or scientific knowledge, can also be met by a plea of ignorance; so after all the regulation is just as efficacious as the law itself. In our state we have overcome this almost completely by requiring the inspectors to see that the regulations are posted in each place of business.

Regulations without the machinery for enforcing them are valueless, if not harmful. Whatever success our board has attained is in a great measure due to another old code law, namely, giving the State Board of Health the right of selection, and the control of county health officers, who are also assistant sanitary inspectors. In Mississippi a health officer cannot get his commission until after he has signed an affidavit to the effect that he will enforce the regulations of the board, and will answer promptly all correspondence.

Under this requirement the removal of a few health officers and telegrams to others requiring them to come in to headquarters for explanation have had a most wholesome effect. Now most of our men are ready for any duty, even to the point of prosecuting a board of supervisors, who in our state, unfortunately, fix the health officers' salary. I doubt whether there is a state represented here today, whose health officers are more true to duty than are those of Mississippi.

Our health officers' convention, and well-defined instructions from time to time, have unified the standards of inspection, until now our organization seems to be as nearly complete as we can hope for without all-time county health officers, or, what is more in keeping with our possibilities, district health

officers such as we have in a few states, and which have made for better sanitation in the Canadian provinces.

The existence of laws and the willingness of county health officers will not be able to operate without the backing of the public; all the talking and writing and pleading for that long-time, hackneyed "stuff" called "co-operation" will not have the wholesome effect, nor will it win friends for sanitation like a few well-placed prosecutions, with plenty of newspaper publicity. No man enjoys being called dirty in our state.

We have been very fortunate in having the good will of the press. High-class papers are always willing to give publicity to a condition that needs remedying for the public welfare, and the result of the health officers' work will be measured by his ability to keep his campaign before the people. Publicity given to one well-directed prosecution against a well-known violator of the regulations will have more educational value than any amount of lecturing or pleading. If this violator is a man of influence, so much the better, the smaller fellows will make no trouble. When they see that you mean business they will either clean up or quit business.

The final attitude of the violator towards the inspector is not so ugly as one would suppose. Our experience teaches that about fifty per cent of the keepers of public service places comply with the regulations as soon as they understand them, and having complied, they will demand that others comply. Forty per cent comply when brought face to face with an affidavit, and the remaining ten per cent evade the regulations in every conceivable manner, and after being harassed a certain length of time will leave the state. The number of Italian fruit dealers in the city of Jackson has diminished from thirty-two to four since we have required the screening of all fruit.

Occasionally one of our greatest offenders will become a most useful and sanitary citizen. Two years ago a large meat dealer was

brought face to face with a heavy penalty; today on a visit to the moving picture shows you see a picture advertisement of a high-class slaughter house. He is done with the bad kind forever.

Our system is simple:

1. We have promulgated the regulations of the board through the press and in every conceivable way.

2. Regulations for each kind of business are printed on a separate slip, and are posted by the assistant inspector on his first visit.

3. Inspections are made by assistants at a designated time. The records are kept in a small manilla bound book, one book being used for each town usually. There are twenty-four leaves in the book, one leaf being used for each public service place inspected. When the inspection of the town is completed the results are summarized on the back of the book. Cut A below illustrates this back, and Cut B illustrates the leaf of the booklet. This booklet is used by both the chief inspector and the assistant inspectors.

4. These books are required to be in by a certain day; the contents as summarized on the back of Fig. A are transferred to the vertical filing card, 5 by 8 inches, which is an exact copy of Fig. A, and is then filed away alphabetically by towns, a yellow card being used for the chief inspector, a blue one of the same kind for the assistants.

The old style score card was first used, but was found to be cumbersome to carry, a time-killer, and did not allow the placing of the inspector's estimate on conditions.

5. If on inspection the keeper of a place is found to be wilfully violating the regulations, an affidavit is made before a justice and he is tried then and there.

We have not hesitated to use the Traveling Men's Association for gathering information on hotels; in fact, the members carry report blanks in their pockets.

Questionnaires on jails and poor houses have been sent to women's clubs with a great deal

Town.....	Date.....	Inspec. No.....
Mayor.....	Attitude.....	
City H. O.....	At.....	
Co. H. O.....	At.....	
W. Prin.....	At.....	
C. Prin.....	At.....	
Marshall.....	At.....	
Water.....	Sewerage.....	
Lectures.....	Attend.....	
At. Public.....	Pres. C. L.....	
No. Af.....	No. Co. vic.....	
Amt. Fines.....	Judge.....	
Papers.....	At.....	
INSPECTIONS		
Hotels.....	Markets.....	
Ct. H.....	Sla. H.....	
Jails.....	Dairies.....	
Schools.....	Bakeries.....	
Depots.....	Frt. Stds.....	
Rests.....	Groc.....	
So. Founts.....	Barber S.....	
Pop. Fac.....	Launderies.....	
Theatres.....	Can. K.....	
Ice Cr. Fac.....	Miscel.....	
Total.....		
		Inspector.....
MISSISSIPPI STATE BOARD OF HEALTH.		

A—Manilla back. Size 4 by 6 inches.

Bus.....	Prop.....	At.....	Gr.....	D.....
Building.....				
Floors.....				
Walls.....				
Toilets.....				
Screening.....				
Utensils.....				
Furniture.....				
Miscel.....				
Improv.....	Reg.....	M.....	Pac.....	

B. Leaf of book contained in A.

of success, as they are especially interested in this line of work.

7. Every effort is made to secure the assistance of municipal boards and health officers. These often resent state interference, but when the State Board begins active operations, using for trial cases the district magistrate, the local authorities come to terms. Their co-operation is especially necessary for the building of consolidated slaughter houses and the establishment of meat and dairy inspection. Practically all other matters can be settled without their assistance.

RESULTS.

This year, so far, 20,752 inspections of public service places have been made, and the number is increasing with each inspection. September alone showed 4,133 inspections by the assistant inspectors. Three years ago

screened fruit was almost unknown; now practically 98 per cent is screened during fly season. Then, there were but two whitewashed dairy barns in the state; now we have more than 400. Then only 48 cows had ever been tested for tuberculosis; now the number is more than 2,000. Then, there was not a clean, well-built slaughter house in the state; now nearly all are screened, whitewashed and otherwise sanitary. Then hotels and restaurants were often unscreened, with roller towels and common drinking cups evident everywhere; now you see them no more. The jails were vermin-laden and unclean throughout, and are not palaces yet, as we have found our supervisors and sheriffs hard to reach, but newspaper publicity of the past few weeks is working wonders here. Then railroads were sweeping in the presence of passengers; now they do their cleaning before they come over

the state line. Then most health officers were inefficient and considered mere figureheads in their communities; now they are becoming a vital part of the community, because they are contributors to its betterment.

One of our most prominent newspaper men, ex-president of the Press Association and a state senator of ability, a few days ago ended a health editorial in the following words:

"It is a long story to recount the fight made by the State Board. Let it suffice to say that a wonderful victory was achieved. Now the people of every city and town and village and rural community are eager to co-operate with the Board of Health in improving sanitary conditions. In every county there is an alert health officer, and a similar official is employed by every municipality. These men work under and with the State Board of Health, and the system has brought about a miraculous change."

DISCUSSION.

Dr. A. T. McCormack, Bowling Green, Ky.: Dr. Rowan's paper is so good, that I do not feel that it should be permitted to slip by us without discussion. I do not say this in the ordinary manner of specious compliment. I have attended health meetings of one kind or another for many years, and I do not believe I have ever heard any other paper which indicated more real knowledge of the actual labor involved in health work. There is nothing that can be added in discussion to such a paper, because it is complete within itself, but I do not think we should permit it to pass without expressing our appreciation of the great labor done by Dr. Rowan, which has made it possible for him to write it.

SOME EXPERIMENTAL WORK ON THE CIRCULATION OF THE TESTICLE.*

BY HERMANN B. GESSNER, M.D.,
New Orleans, La.

In 1912¹ I reported two cases of cryptorchidism operated on by the Bevan method. In one of these the division of the obliterated

vaginal process made possible the easy drawing down of the testis to the bottom of the scrotal pouch. In the other the vas was isolated with its vessels and the remaining structures of the cord double ligated and cut; the testis was then brought down to the bottom of the scrotum with a U suture.

In concluding my paper I referred to the paper² of Dr. Charles Davison, of Chicago, which I had read after operating on these cases. Later I had the opportunity of operating by this method on two cases, the first of which I have reported.³ In the second case, one of bilateral undescended testis, while one testis was in the inguinal canal and easily brought down by the Davison method, the other was above the canal and very difficult to handle, in fact, the most difficult of five undescended testes in four patients, yet by the method under consideration it was brought through the canal into the shallow scrotal pocket burrowed for it, without division of a single structure in the cord.

The technic of Davison is most simply described by saying that, in the main, it consists in dividing the deep epigastric vessels between ligatures, dividing the double sheet of fascia—above and below the vessels—which lies between the transversalis fascia and Poupart's ligament, then swinging in the structures of the cord to the inner angle of the wound and suturing as in the operation for hernia. The vas is not at fault in cryptorchidism, being usually of ample length to permit the descent. The vessels, now relieved of the necessity of reaching the external ring by a circuitous route, including a double curve, are at this stage easily long enough to permit the testis to be drawn into the scrotal pouch. Here it is fixed by a suture involving scrotum and tunica vaginalis.

The practical question that arises is this: Is it worth while to go through the steps of the Davison technique in order to save the spermatic cord intact, or is Bevan right when he teaches the cutting of all the cord but the vas and its artery and veins?

*Read in Section on Surgery, Southern Medical Association, Eighth Annual Meeting, Richmond, Va., November 9-12, 1914.