

# The Salvaging of Civilization

## The Schooling of the World

By H. G. WELLS

ILLUSTRATED BY M. L. BLUMENTHAL

NOW I am going on to a review of the broad facts of the educational organization of our present world. I am myself a very undereducated person. It is a constant trouble to me. Like seeks like in this world. I propose to ask the question whether the whole world is not very undereducated, and I warn you in advance that I am going to answer in the affirmative.

I am going to discuss the possibility of raising the general educational level very considerably, and I am going to consider what such a raising of the educational level would mean in human life.

I propose to adopt a rather vulgar, business-like tone about all this. I am going to apply to the human community much the same sort of tests that a manufacturer applies to his factory. His factory has some distinctive product, and when he looks into his affairs he tries to find out whether he gets the utmost quantity of the product, whether he gets the best possible quality of the product, whether he gets it as efficiently and inexpensively as possible, and constantly how he can improve his processes in all these matters.

### The Test of a Nation

NOW, the human community may be regarded as a concern engaged in the production of human life. And it may be judged very largely by the question whether the human life it produces is abundant and full and intense and beautiful.

Most of the tests that we apply to a state or a city or a period or a nation resolve themselves, you will find, into these questions:

What was the life it produced?

What is the life it produces?

Now, I will further assume that as yet the community has little or no control over the raw product, over the life, that is to say, that comes into it. I admit that from at least the time of Plato onward the possibility has been discussed of breeding human beings as we do horses and dogs. There is an enormous amount of what is called eugenic literature and discussion to-day. But I will set all that sort of thing aside from our present discussion, because I do not think anything of the sort is practicable at the present time.

Quite apart from any other considerations, one has to remember one entire difference between the possible breeding of human beings and the actual breeding of dogs and horses. We breed dogs and horses for uniformity, for certain very limited specified points—speed, scent, and the like. But human beings we should have to breed for variety; we cannot specify any particular points we want. We want statesmen and poets and musicians and philosophers and strong men and delicate men and brave men. The qualities of one would be the weaknesses of another.

It is really a false analogy, that between the breeding of men and the breeding of horses and dogs. In the case of human beings we want much more subtle and delicate combinations of qualities. For any practical purposes we do not know what we want, nor do we know how to get it. So let us rule that theme out of our present discussion altogether.

And I also propose to rule out another set of topics from this discussion—simply because if we don't do so we shall have

more matter than we can handle conveniently in the space at our disposal. I propose to leave out all questions of health and physical welfare. There is, as you know, a vast literature now in existence, concerned with the health and welfare of children before and after birth, concerned with infantile life, with social conditions and social work, directed to the production of a vigorous population. I am going to assume here that all that sort of thing is seen to—that it is all right, that somebody is doing that, that we need not trouble for the present about any of those things.

This leaves us with the mental life only of our community and its individuals to consider.



In the Primitive Ages of Our Race the Parent, and Particularly the Mother, Restrained and Showed and Taught

Now, the human mind in its opening stages in a civilized community passes through a process which may best be named as schooling. And under schooling I would include not only the sort of things that we do to a prospective citizen in the school and the infant school, but also anything in the nature of a school-like lesson that is done by the mother or nurse or tutor at home, or by playmates and companions anywhere. Out of this schooling arises the general mental life. It is the structural ground stuff of all education and thought.

Now, what is this schooling to do—what is it doing to the new human being?

Let us recall what our own schooling was.

It fell into two pretty clearly defined parts. We learned reading and writing, we made a certain study of grammar, the method of language; perhaps we learned the beginnings of some other language than our own; we learned some arithmetic, and perhaps a little geometry and algebra; we did some drawing. All these things were ways of expression, means of expressing ourselves, means of comprehending our thoughts in terms of other people's minds, and of understanding the expressions of others. That was the basis and substance of our schooling; a training in mental elucidation and in communication with other minds. But also, as our schooling went on, there was something more: we learned a little history, some geography, the beginnings of science. This second part of education was not so much expression as wisdom. We learned what was generally known of the world about us and of its past. We entered into the common knowledge and common ideas of the world.

Now, obviously this schooling is merely a specialization and expansion of a parental function.

In the primitive ages of our race the parent, and particularly the mother, out of an instinctive impulse and practical necessity, restrained and showed and taught; and the child, with an instinctive imitativeness and docility, obeyed and learned. And as the primitive family grew into a tribe, as functions specialized and the range of knowledge widened, this primitive schooling by the mother

was supplemented and extended by the showing of things by companions and by the maxims and initiations of old men.

It was only with the development of early civilization, as the mysteries of writing and reading began to be important in life, that the school, qua school, became a thing in itself. And as the community expanded the scope of instruction expanded with it. Schooling is in fact, and always has been, the expansion and development of the primitive savage mind, which is still all that we inherit, to adapt it to the needs of a larger community. It makes out of the savage raw material which is our basal mental stuff, a

citizen. It is a necessary process of fusion if a civilized community is to keep in being. Without at least a network of schooled persons, able to communicate its common ideas and acts in intelligent coöperation, no community beyond a mere family group can ever hold together.

As the human community expands, therefore, the range of schooling must expand to keep pace with it.

I want to base my inquiry upon that proposition. If it is sound, certain

very interesting conclusions follow. I have already shown in the preceding discussions that the range of the modern state has increased at least ten times in the past century, and that the scale of our community of intercourse has increased correspondingly. I want now to ask if there has been any corresponding enlargement of the scope of the schooling—either of the community as a whole or of any special governing classes in the community—to keep pace with this tremendous extension of range. I am going to argue that there has not been such an enlargement, and that a large factor in our present troubles is the failure of education to keep pace with the new demands made upon it.

### The Ideal Education

NOW I will first ask: What would one like one's son or daughter to get at school to make him or her a full living citizen of this modern world? And at first I will not

take into consideration any questions of expense or any such practical difficulties. I will suppose that for the education of this fortunate young citizen whose case we are considering we have limitless means, the best possible tutors, the best apparatus and absolutely the most favorable conditions. The only limits to the teaching of this young citizen are his or her own limitations. We suppose a pupil of fair average intelligence only.

Now, first, we shall want our pupil to understand, speak, read and write the mother tongue well. To do this thoroughly in English involves a fairly sound knowledge of Latin grammar and at least some slight knowledge of the elements of Greek. Latin and Greek, which are disappearing as distinct and separate subjects from many school curricula, are returning as necessary parts of the English course.

But nowadays a full life is not to be lived with a single language. The world becomes polyglot. Even if we do not want to live among foreigners we want to read their books and newspapers and understand and follow their thoughts. Few of us there are who would not gladly read and speak several more languages if we had the chance of doing so. I would therefore set down as a desirable part of this ideal



education we are planning two or three other languages, in addition to the mother tongue, learned early and thoroughly.

These additional languages can be learned quite easily if they are learned in the right way. The easiest way to learn a language is to learn it when you are quite young. Many prosperous people in Europe nowadays contrive to bring up their children with two or three foreign languages by employing foreign nurses and nursery governesses who never speak to the children except in the foreign languages. In many cases what is known as the alternate-week system prevails. The governess is Swiss, and for one week she talks nothing but French, and for another nothing but German. In this way the children at the age of eight or nine can be made to talk all three languages with a perfect accent and an easy idiom.

Now, if this can be done for some children it could be done for all children, provided we could find the nurses and governesses or some equivalent for the nurses and governesses, and if we could organize the business efficiently. That point I will defer. I note here simply that the thing is possible, if not practicable.

Children, however, who have made this much start with languages are unable, in England and America at least, to go on properly with the learning of languages when they pass into a school. Our schools are so badly organized that it is rare to find even French well taught, and there is rarely any teaching at all of modern languages other than French and German. Often the two foreign languages are taught by different teachers employing different methods, and both employing a different grammatical nomenclature from that used in studying the mother tongue. The classes are encumbered with belated beginners. The child who has got languages from its governess, therefore, marks time—that is to say, wastes time in these subjects at school. The child well grounded in some foreign tongue is often a source of irritation to the teacher and gets into trouble because it uses idiomatic expressions with which the teacher is unfamiliar or seems to reflect upon the teacher's accent. These are the limitations of the school, and not the limitations of the pupil. Given facilities, there is no reason why there should not be a rapid expansion of the language syllabus at thirteen or fourteen, and why language generally should not be studied. Some Slavonic language could be taken up—Russian or Czech—and a beginning made with some non-Aryan tongue—Arabic, for example.

The object of language teaching in a civilized state is twofold. One is to give a thorough, intimate, usable knowledge of the mother tongue and of certain key languages. But if teaching were systematic and no time were wasted, if schooling joined on and were continuous instead of being catastrophically disconnected, there is another side of language teaching altogether—now entirely disregarded—and that is the acquisition in skeleton of quite a number of languages clustering round the key languages. If at the end of his schooling a boy knows English, French and German very well, and nothing more, he is still a helpless foreigner in relation to large parts of the world. But if, in addition, he has an outline knowledge of Russian and Arabic or Turkish or Hindustani—it need be only a quite bare outline—and if he has had a term or so of Spanish in relation to his French, or Swedish in relation to his German, then he has the key in his hands for almost any language he may want. If he has not the language in his head he has it very conveniently on call; he needs but a sensible conversation dictionary, and in a little while he can possess himself of it.

**Training in Mathematics**

YOU may think this a large order; you may think I am demanding linguistic prodigies; but remember that I am upon my own ground here; I am a trained teacher and a student of pedagogic science, and I am a watchful parent; I know how time and opportunity are wasted in school, and particularly in language teaching. Languages are not things that exist in water-tight compartments; each one illuminates the other, and—unless it is taught with stupefying stupidity—leads on to others. A child can acquire the polyglot habit almost unawares. This widening grasp of languages is, or was, within the capacity of nearly every-one born into the world—given the facilities.

I ask you to note that qualification—given the facilities. And now let us turn from the language side to the rest of schooling. A second main division of our schooling was mathematical instruction of a sort. It fell into the three more or less water-tight compartments of arithmetic,

algebra and Euclid. We carried on in these closed cells what was, I now perceive, a needlessly laborious and needlessly muddled struggle to comprehend quantity, series and form.

In all these matters, looking back upon what I was taught, comparing it with what I now know, and comparing my mind with the minds of more fortunate individuals, I cannot resist the persuasion that I was very badly done indeed in this section. And it is small consolation to me to note that most people's minds seem to be no better done than mine.

My arithmetic, for instance, is very mediocre. It is pervaded by inaccuracy. You may say that this is probably want of aptitude. Partly, no doubt, but not altogether. What is want of aptitude? Bad as my arithmetic is now, it is not so bad as it was when I left school. When I was about twenty I held a sort of inquest upon it and found out a number of things. I found that I had been allowed to acquire certain bad habits and besetting sins—most people do. For instance, when I ran up a column of figures to add them I would pass from nine to seven quite surely and say sixteen; but if I went from seven to nine I had a vicious disposition to make it eighteen. Endless additions went wrong through that one error. I had fumbled into this vice, and—this is my point—my school had no apparatus and no system of checks to discover that this had occurred. I used to get my addition wrong, and I used to be punished—stupidly—by being kept in from exercise. Time after time this happened; there was no investigation, and no improvement. Nobody ever put me through a series of test sums that would have analyzed my errors and discovered these besetting sins of mine that led to my inaccurate arithmetic.

**History Badly Taught**

AND another thing that made my arithmetic wrong was a defect in eyesight. My two eyes have not quite the same focal length, and this often puts me out of the straight with a column of figures. But there was nothing in my school to discover that, and my school never did discover it.

My geometrical faculties are also very poor and undeveloped. Euclid's elements, indeed, I have always found very simple and straightforward, but when it comes to anything in solid geometry—the intersection of a sphere by a cone, let us say, or anything of that sort—I am hopelessly at sea. Deep-seated habits of faulting and fogging, which were actually developed by my schooling, prevent my forming any conception of the surfaces involved.

Here, again, just as with the language teaching, hardly any of us are really fully educated. We suffer, nearly all of us, from a lack of quantitative grasp and from an imperfect grasp of form. Few of us have acquired such a grasp. Few of us ever made a proper use of models, and nearly all of us have miserably trained hands. Given proper facilities—and here, again, I ask you to note that proviso, given proper educational facilities—most of us would not only be able to talk with most people in the world but we should also have a conception of form and quantity far more subtle than that possessed by any but a few mathematicians to-day.

Let me now come to a third main division of what we call schooling. In our schooling there was an attempt to give us a view of the world about us and a view of our place in it, under the headings of history and geography.

It would be impossible to imagine a feebler attempt. The history and geography I had was perhaps, in one respect, the next best thing to a good course. It was so thoroughly and hopelessly bad that it left me with a vivid sense of ignorance. I read, therefore, with great avidity during my adolescence.

In English schools now I doubt if the teaching of history is much better than it was in my time, but geography has grown and improved—largely through the vigorous initiative of Professor Huxley, who replaced the old dreary topography by a vivid description of the world and mingled with it a sort of general elementary science under the name of physiography. This subject, with the addition of some elementary biology and physiology, does now serve to give many young people in Great Britain something like a general view of the world as a whole. We need now to make a parallel push with the teaching of history. Upon this matter of the teaching of history I am a fanatic. I cannot think of an education as even half done until there has been a fairly sound review of the whole of the known past, from the beginnings of the geological record up to our own time. Until that is done the pupil has not been placed in the world. He is incapable of understanding his relationship to and his rôle in the scheme of things. He is—whatever else he may have learned—essentially an ignorant person.

**A Matter of Facilities**

WELL, now, let me recapitulate these demands I have made upon the process of schooling—this process of teaching that begins in the nursery and ends about the age of sixteen or seventeen. I have asked that it should involve a practical mastery of three or four languages, including the mother tongue, and that perhaps four or five other additional languages shall have been studied, so to speak, in skeleton. I have added mathematics, carried much higher and farther than most of our schools do to-day. I have demanded a sound knowledge of universal history, a knowledge of general physical and biological science, and I have thrown in, with scarcely a word of apology, a good training of the eyes and hands in drawing and manual work.

So far as the pupil goes, I submit this is an entirely practicable proposal. It can be done, I am convinced, with any ordinary pupil of average all-round ability, given—what

is now almost universally wanting—the proper educational facilities. And now I will go on to examine the question of why

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*I for One Do Not Care How Soon Every Possible Variety of Ignorance and Misconception is Banished From the World*





## THE SALVAGING OF CIVILIZATION

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these facilities are wanting. I want to ask why a large class, if not the whole of our population, is not educated up to the level of wide understanding and fully developed capacity such a schooling as I have sketched out implies.

Well, the first fact obvious to every parent who has ever inquired closely into the educational outlook of his offspring—the first fact we have to face is this: There are not enough properly equipped schools, and, still more, not enough good teachers to do the job. It is proclaiming no very profound secret to declare that there is hardly such a thing in the world to-day as a fully equipped school—that is to say, a school having all the possible material and apparatus, and staffed sufficiently with a bright and able teacher, a really live and alert educationist in every necessary subject, such as would be needed to give this ideal education. That is the great primary obstacle, that is the core of our present problem. We cannot get our modern community educated to anything like its full possibilities as yet, because we have neither the teachers nor the schools.

Now is this a final limitation?

For a moment I will leave the question of the possibilities of more and better-equipped schools on one side. I will deal with the supply of teachers. At present we do not even attempt to get good teachers; we do not offer any approach to a tolerable life for an ordinary teacher; we compel them to lead mean and restricted lives; we underpay them shockingly; we do not deserve nearly such good teachers as we get. But even supposing we were to offer reasonable wages for teachers—an average all-round wage of one thousand pounds a year or so, and respect and dignity—it does not follow that we should get as many as we should need—using the methods that are in use to-day—to provide this ideal schooling for most of our population, or, indeed, for any large section of our population.

You will note a new proviso creeping in at this point—using the methods that are used to-day.

### Educational Weaknesses

Because you must remember it is not simply a matter of payment that makes the teacher. Teachers are born and not made. Good teaching requires a peculiar temperament and distinctive aptitudes. I doubt very much, even if you could secure the services of every human being who had the natural gifts needed in a good teacher, if you could disregard every question of cost and payment—I doubt whether even then you would command the services of more than one passable teacher for a hundred children, and of more than one really inspired and inspiring teacher for five hundred children. No doubt you could get a sort of teacher for every score, or even for every dozen children—a commonplace person who could be trained to do a few simple educational things—but I am speaking now of good teachers, who have the mental subtlety, the sympathy and the devotion necessary for efficient teaching by the individualistic methods in use to-day. And since—using the methods that are used to-day—you can only hope to secure fully satisfactory results with one teacher to every score of pupils, or fewer, and since it is unlikely we shall ever be able to command the services of more than a tithe of the people who could teach well, it seems that we come up here against an insurmountable obstacle to an educated population.

Now I want to press the idea of that difficulty home. I am an old and seasoned educationist; most of my earliest writings are concealed in the anonymity of the London educational papers of a quarter of a century ago; and my knowledge of educational literature is fairly extensive. I know, in particular, the literature of educational reform. And I do not recall that I have ever encountered any recognition of this fundamental difficulty in the way of educational development. The literature of educational reform is always assuming parents of limitless intelligence, sympathy and means, employing teachers of limitless energy and capacity. And that to an extreme degree is what we haven't got and what we can never hope to have.

Educational reformers seem always to be looking at education from the point of view of the individual scholastic enterprise and of the individual pupil, and hardly ever from the point of view of a public task dealing with the community as a whole. For all practical purposes this makes waste paper of a considerable proportion of educational literature. This literature, the reader will find, is pervaded by certain fixed ideas. There is a sort of standing objection to any machining of education. There is, we are constantly told, to be no syllabus of instruction, no examination and no controls, no prescribed textbooks or diagrams—because these things limit the genius of the teacher. And this goes on with a blissful, invincible disregard of the fact that in nine hundred and ninety-nine cases out of the thousand the genius of the teacher isn't and can't be there; and also of the fact that this affair of elementary education has in its essentials been done over and over and over again for thousands of millions of times. There ought to be as much scope left for genius and originality in ordinary teaching as there is for genius and originality in a hen laying an ordinary egg.

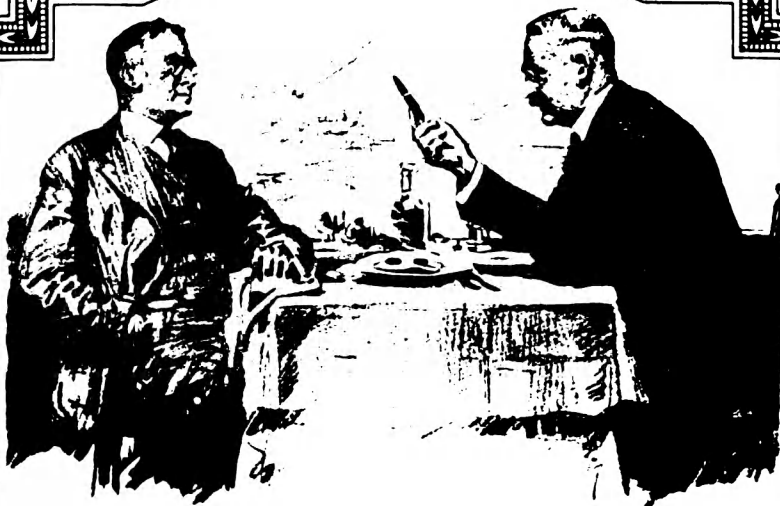
### School Equipment

These educational idealists are always disregarding the fundamental problem of educational organization altogether—the problem of economy, economy of the most precious thing of all—teaching power. It is the problem of stretching the competent teacher over the maximum number of pupils, and that can be done only by the same methods of economy that are practiced in every other large-scale production—by the standardization of everything that can be standardized, and by the use of every possible time and labor saving device and every possible replacement of human effort, not in order to dispense with originality and initiative, but in order to conserve them for application at their points of maximum efficiency.

I have said that a disregard of the possibilities of wide organization and its associated economy of effort is characteristic of most advanced educational literature. You will, if you will examine them, find that disregard working out to its natural consequences in what are called the advanced schools that appeal to educationally anxious parents nowadays. You will find these places, often very picturesque and pleasing-looking places, are rarely prosperous enough to maintain more than one or two good teachers. The rest of the staff shrinks from scrutiny. You will find these schools adorned with attractive diagrams drawn by the teachers, and strikingly original models and apparatus made by the teachers; and if you look closely into the matter or consult an intelligent pupil, you will find there are never enough diagrams and apparatus to see a course through. If you press that matter you will find that they haven't had time to make them so far. And they will never get so far. No school, however rich and prosperous, and however enthusiastically run, can hope to make for itself all the plant and diagrams and apparatus needed for a fully efficient modern education such as we have sketched out.

But now I think you will begin to see what I am driving at. It is this—that if the general level of education is to be raised in our modern community, and if that better education is to be spread over most of our community, it is necessary to reorganize education in the world upon entirely bolder, more efficient and more economical lines. We are inexorably limited as to the number of good teachers we can get into the educational organization, and we are limited as inexorably as to the quality of the rank and file of our teaching profession; but we are not limited in the equipment and systematic organization of teaching methods and apparatus. That is what I want particularly to enlarge upon now.

Think of the ordinary schoolhouse—a mere empty brick building, with a few hat pegs, a stale map or so, half a dozen plaster casts, a few hundred tattered books, a blackboard and some broken chemical apparatus. Think of it as the dingy insufficiency it is! In such a place the best teacher must needs waste three-quarters of his energies.



## “speaking of ham and eggs”

“Jim, when I think of real value I think of two things—ham-and-eggs, and Cinco cigars. Look round this dining car and you'll see a lot of other plates bearing evidence of the same kind of wisdom. And when you go into the smoking car you'll see the Cinco side of my philosophy.

“I see people flounder round for ten minutes over the menu and then order ham-and-eggs. And I've noticed when a seasoned smoker stands up to a 20-foot cigar case, and gets lost in confusion of brands, he finally calls for Cinco.

“We Americans are getting more natural every day. We are good spenders. But when we want a combination that gives us the necessary calories that the food experts talk about, we find more of them by instinct in ham-and-eggs than in anything else. And when it comes to a real meritorious cigar at a reasonable price, our ham-and-eggs common sense says 'Cinco.'

“Cinco is the most popular cigar in America—and it deserves to be. It's the result of 70 years of experience in the hands of a single family, and these men have always given value plus.

“For real value and a mild smoke you can't beat the old rule—

# “STICK TO Cinco

OTTO EISENLOHR  
& BROS., INC.  
PHILADELPHIA  
ESTABLISHED 1850

## IT'S SAFE”

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In such a place staff and pupils meet chiefly to waste each other's time. This is the first and principal point at which we can stanch the wastage of teaching energy that now goes on. Everywhere about the world nowadays the schoolhouse is set up and equipped by a private person or a local authority in more or less complete ignorance of educational possibilities, in more or less complete disconnectedness, without any of the help or any of the economy that comes from a centralized mass production. Let us now consider what we might have in the place of this typical schoolhouse of to-day.

Let me first suggest that every school should have a complete library of very full and explicit lesson notes, properly sorted and classified. All the ordinary subjects in schools have been taught over and over again millions and millions of times. Few people, I think, realize that, and fewer still realize the reasonable consequences of that. Human minds are very much the same everywhere, and the best way of teaching every ordinary school subject, the best possible lesson, and the best possible succession of lessons, ought to have been worked out to the last point, and the courses ought to have been stereotyped long ago. Yet if you go into any school to-day, in ninety-nine cases out of the hundred you will find an inexperienced and ill-prepared young teacher giving a clumsy, vamped-up lesson as though it had never been given before. He or she will have no proper notes and no proper diagrams, and a halting and faulty discourse will be eked out by feeble scratchings with chalk on a blackboard, by querulous questioning of the pupils and irrelevancies. The thing is preposterous.

And linked up with this complete equipment of proper lesson notes upon which the teacher will give the lessons, there should be a thing which does not exist at present in any school and which ought to exist in every school—a collection of some hundreds of thousands of pictures and diagrams, properly and compactly filed; a copious supply of maps, views of scenery, pictures of towns, and so forth, for teaching geography; diagrams and tables for scientific subjects, and so on, and so on. You must remember that if the schools of the world were thought of as a whole and dealt with as a whole these things could be produced wholesale at costs out of comparison cheaper than they are made to-day. There is no reason whatever why school equipment should not be a world market. A lesson upon the geography of Sweden needs precisely the same maps, the same pictures of scenery, types of people, animals, cities, and so forth, whether that lesson is given in China or Peru or Morocco or London.

#### Teaching by Talking Machines

And next to this full and manageable collection of pictures and diagrams, which the teacher would whip out, with the appropriate notes, five minutes before his lesson began, the modern school would have quite a considerable number of gramophones. These would be used not only to supply music for drill, and so forth, and for the analytical study of music, but for the language teaching. Instead of the teacher having to pretend, as he usually pretends now, to a complete knowledge of the foreign language he can really only smatter, he could become the honest assistant of the real teaching instrument—the gramophone. Here, again, it is a case for big methods or none—a case for mass production. A mass production of gramophone records for language teaching throughout the world would so reduce the cost that every school could quite easily be equipped with a big repertory of language records. For the first year of any language study, at any rate, the work would go always to the accompaniment of the proper accent and intonation. And all over the world each language would be taught with the same accent and quantities and idioms—a very desirable thing indeed.

And now let me pass on to another requirement for an efficient school that our educational organization has still to discover—the method of using the cinematograph. I ask for half a dozen projectors or so in every school and for a well-stocked storehouse of films. The possibilities of certain branches of teaching have been altogether revolutionized by the cinematograph. In nearly every school nowadays you will find a lot of more or less worn and damaged scientific apparatus which is supposed to be used for demonstrating the elementary facts of chemistry, physics, and the like.

Now that is the sort of thing that still goes on. But it ought to be entirely out of date. All that scientific bric-a-brac in the cupboard had far better be thrown away. All the demonstration experiments that science teachers will require in the future can be performed once for all—before a cinematograph. They can be done finally; they need never be done again. You can get the best and most dexterous teacher in the world—he can do what has to be done with the best apparatus, in the best light; anything that is very minute or subtle you can magnify or repeat from another point of view; anything that is intricate you can record with extreme slowness; you can show the facts a mile off or six inches off, and all that your actual class teacher need do now is to spend five minutes on getting out the films he wants, ten minutes in reading over the corresponding lecture notes, and then he can run the film, give the lesson, question his class upon it, note what they miss and how they take it, run the film again for a second scrutiny, and get out for the subsequent study of the class the ample supply of diagrams and pictures needed to fix the lesson. Can there be any comparison between the educational efficiency of the two methods?

#### Mass Production in Education

So I put it to you, that it is possible now to make—and that the world needs badly that we should make—a new sort of school, a standardized school, a school richly equipped with modern apparatus and economizing the labor of teaching to an extent at present undreamed of, in which, all over the world, the same stereotyped lessons, leading the youth of the whole world through a parallel course of schooling, can be delivered.

I know that in putting this before you I challenge some of the most popular affectations of cultivated people. I know that many people will be already writhing with a genteel horror at the idea of the same lesson being given in identical terms to everybody in turn throughout the world. It sounds monotonous. It will rob the world of variety—and so on, and so on. But, indeed, it will not be monotonous at all. That lesson will be new and fresh and good to every pupil who receives it. And remember it is by our hypothesis the best possible form and arrangement of that lesson. It is to take the place of a sham lesson or no lesson at all. There is an eternal freshness in learning as in all the other main things in life.

It will be no more monotonous than having one's seventh birthday or falling in love for the first time.

You see in all this I am driving at—what shall I call it?—syndicated schools, syndicated lesson notes, and, so far as equipment goes, mass production. I want to see the sort of thing happening to schools that has already happened to many sorts of retail shops. In the place of little ill-equipped schools, each run by its own teacher and buying its own books and diagrams and material, and so forth, in small quantities at high prices, I want to see a great central organization, employing teachers of genius, working in consultation and cooperation and producing lesson notes, diagrams, films, phonograph records, cheaply, abundantly, on a big scale for a nation, or a group of nations, or, if you like, for all the world, just as America produces watches and alarm clocks and cheap automobiles for all the world. And I want to see the schools of the world being run, so far as the intellectual training goes, not by local committees but by that central organization.

It is only by this reorganization of schooling upon the lines of big production that we can hope to get a civilized community in the world at an educational level very markedly higher than the existing educational level.

But if we could so economize teaching energy—if we made our really great teachers, by the use of modern appliances, teachers not of handfuls but of millions; if we insisted upon a universal application of the best and most effective methods of teaching, just as we insist upon the best and most effective methods of street traction and town lighting—then I believe it would be possible to build the civilization of the years to come on a foundation of mental preparation incomparably sounder and higher than anything we know of to-day.

Editor's Note—This is the fifth of a series of six articles by Mr. Wells. The final article will appear in an early issue.

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# The Salvaging of Civilization

NOW let us go on to the next stages of education. The schooling process is a natural phase in human development; it is our elaboration of the natural learning of boyhood and girlhood and of adolescence. There was schooling before schools; there was schooling before humanity. I have watched a cat schooling her kittens. Schooling is a part of being young. And we grow up. So there comes a time when schooling is over, when the process of equipment gives place to an increasing share in the activities and decisions of adult life.

Nevertheless, for us education must still go on. I suppose that the savage or the barbarian or the peasant in any part of the world or the uneducated man anywhere would laugh if you told him that the adult must still learn. But in our modern world—I mean the more or less civilized world of the last twenty-five centuries or so—there has grown up a new idea—new, I mean, in the sense that it runs counter to the life scheme of primitive humanity and of most other living things; and that is the idea that one can go on learning right up to the end of life. It marks off modern man from all animals that in his adult life he can still display a sense that there remains something still to be investigated and wisdom still to be acquired.

I do not know enough history to tell you with any confidence when adult men, instead of just going about the business of life after they had grown up, continued to devote themselves to learning, to a deliberate prolongation of what is for all other animals an adolescent phase. But by the time of Buddha in India and Confucius in China and the schools of the philosophers in the Greek world the thing was in full progress. That was twenty-five centuries ago or so. Something of the sort may have been going on in the temples of Egypt or Sumeria a score of centuries before. I do not know. You must ask some such great authority as Professor Breasted about that. It may be fifty or a hundred centuries since men, although they were fully grown up, still went on trying to learn.

To-day I suppose most educated people would agree that so long as we live we learn and ought to learn—that we ought to develop our ideas and enlarge, correct and change them.

## Men Who Stop Learning

BUT even to-day you will find people who have not yet acquired this view. You will find even teachers and doctors and business men who are persuaded that they had learned all that there was to learn by twenty-five or thirty. It is only quite recently that this idea has passed beyond a special class and pervaded the world generally—the idea of everyone being a lifelong student and of the whole world becoming, as it were, a university for those who have passed beyond the schooling stage.

It has spread because in recent years the world has changed so rapidly that the idea of settling down for life has passed out of our minds, has given place to a new realization of the need of continuous adaptation to the very end of our days. It is no good settling down in a world that, on its part, refuses to do anything of the sort.

But hitherto, before these new ideas began to spread in our community, the mass of men and women definitely settled down. At twelve or fifteen or sixteen or twenty it was decided that they should stop learning. It has been only a rare and exceptional class hitherto that has gone on learning throughout life. The scene and field of that learning hitherto has been, in our Western communities, the university. Essentially the university is, and has been, an organization of adult learning as distinguished from preparatory and adolescent.

But between the phase of schooling and the phase of adult learning there is a sort of intermediate stage. In Scotland and America

## College, Newspaper and Book

By H. G. WELLS

DECORATIONS BY M. L. BLUMENTHAL

that is distinguished and thought of clearly as the college stage. But in England, where we do not think so clearly, this college stage is mixed up with and done partly at schools and partly in the university. It is not marked off so definitely from the stage of general preparation that precedes it or from the stage of free intellectual enterprise that follows it.

Now what should college give the young citizen, male or female, upon the foundation of schooling we have already sketched out? In practice we find a good deal of technical study comes into the college stage. The budding lawyer begins to read law, the doctor starts his professional studies, the future engineer becomes technical, and the young merchant sets to work, or should do so, to study the great movements of commerce and business method.

### A Biological Backbone for Education

AS THE college stage of those who don't, as a matter of fact, go to college, we have now in every civilized country the evening continuation school, the evening technical school and the works school. But, important as these things are from the point of service, they are not the soul, not the real meaning, of the college stage.

The soul of the college stage, the most important value about it, is that in it is a sort of preparatory pause and inspection of the whole arena of life. It is the educational concomitant of the stage of adolescence.

The young man and the young woman begin to think for themselves, and the college education is essentially the supply of stimulus and material for that process.

It was in the college stage that most of us made out our religion, and made it real for ourselves. It was then we really took hold of social and political ideas, when we became alive to literature and art, when we began the delightful and distressful enterprise of finding ourselves.

And I think most of us will agree when we look back that the most real thing in our college life was not the lecturing and the lessons—very much of that stuff could very well have been done in the schooling stage—but the arguments of the debating society, the discussions that broke out in the classroom or laboratory, the talks in one's rooms about God and religion, about the state and freedom, about art, about every possible and impossible social relationship.

Now in addition to that I had something else in my own college course—something of the same sort of thing but better.

I have spoken of myself as undereducated. My schooling was shocking, but, as a blessed compensation, my college stage was rather exceptionally good. My schooling ended when I was thirteen. My father, who was a professional cricketer, was smashed up by an accident, and I had three horrible years in employment in shops. Then my luck changed, and I found myself under

one of the very greatest teachers of his time—Professor Huxley. I worked at the Royal College of Science, in London, for one year under him in his great course in zoology, and for a year and a half under a very good teacher, Professor Judd, the geologist. I did also physics and astronomy. Altogether I had three full years of science study. And the teaching of biology

at that time, as Huxley had planned it, was a continuing, systematic, illuminating study of life, of the forms and appearances of life, of the way of life, of the interplay of life, of the past of life and the present prospect of life. It was a tremendous training in the sifting of evidence and the examination of appearances.

Every man is likely to be biased, I suppose, in favor of his own educational course. Yet it seems to me that those three years of work were educational—that they gave a vision of the universe as a whole and a discipline and a power such as no other course, no classical or mathematical course I have ever had a chance of testing, could do.

I am so far a believer in a biological backbone for the college phase of education that I have secured it for my sons, and I have done all I can to extend it in England. Nevertheless, important as that formal college work was to me, it still seems to me that the informal part of our college life—the talk, the debates, the discussion, the scampering about London to attend great political meetings, to hear William Morris on Socialism, Auberon Herbert on Individualism, Gladstone on home rule, or Bradlaugh on atheism, for those were the lights of my remote student days—was almost about equally important.

If schooling is a training in expression and communication, college is essentially the establishment of broad convictions. And in order that they may be established firmly and clearly it is necessary that the developing young man or woman should hear all possible views and see the medal of truth not only from the obverse but from the reverse side.

Now here again I want to put the same sort of questions I have put about schooling.

Is the college stage of our present educational system anywhere near its maximum possible efficiency? And could it not be extended from its present limited range until it reached practically the whole adolescent community?

Let me deal with the former of these questions first.

### Concealment or Open Ventilation?

COULD we not do much more than we do to make the broad issues of various current questions plain and accessible to our students in the college stage?

For example, there is a vast discussion afoot upon the questions that center upon property—its rights and its limitations. There is a great literature of collectivist socialism and guild socialism and communism. About these things our young people must know. They are very urgent questions; our sons and daughters will have to begin to deal with them from the moment they leave college. Upon them they must form working opinions, and they must know not only what they themselves believe but, if our public affairs are not to degenerate in the squalid, obstinate, hopeless conflicts of prejudiced adherents, they must know also what is believed by other people whose convictions are different from theirs.

You may want to hush these matters up. Many elderly people do. You will fail.

All our intelligent students will insist upon learning what they can of these discussions and forming opinions for themselves. And if their college will not give them the representative books, a fair statement of the facts and views, and some guidance through the maze of these questions, it means merely that they will get a few books in a defiant or underhand way and form one-sided and impassioned opinions.

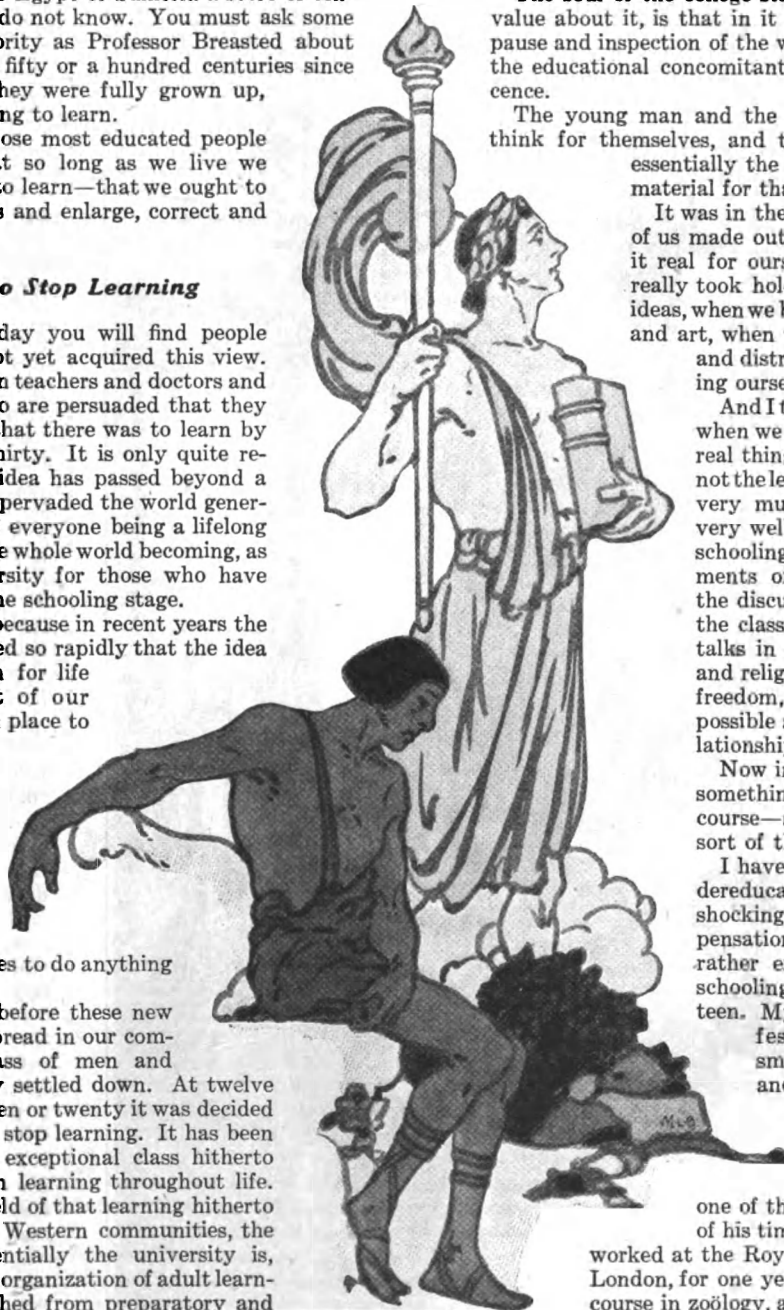
Another great set of questions upon which the adolescent want to judge for themselves, and ought to judge for themselves, are the religious questions.

And a third group are those that determine the principles of sexual conduct.

I know that in all these matters, on both sides of the Atlantic, a great battle rages between dogma and concealment on the one hand and open ventilation on the other.

Upon the issue I have no doubt. I find it hard even to imagine the case for the former side.

So long as schooling goes on, the youngster is immature, needs to be protected, is not called upon for judgments and initiatives, and may well be kept under mental limitations. I do not care very much how you censor or select the reading and talking and thinking of the schoolboy or schoolgirl.



Before New Ideas Began to Spread the Mass of Men and Women Settled Down





*A Day Will Come When That Door Will Open Wide, and All Our Race Will Pass Out From This Magic Prison of Ignorance*

But it seems to me that with adolescence comes the right to knowledge and the right of judgment, and that it is the task and duty of the college to give matters of opinion in the solid—to let the student walk round and see them from every side.

Now how is this to be done? I suggest that to begin with we open wide our colleges to propaganda of every sort. There is still a general tendency in universities on both sides of the Atlantic to treat propaganda as infection. For the adolescent it is not; it is a stimulating drug.

You will find most colleges and most college societies bar religious instruction and discussion. What do they think they are training? Some sort of genteel recluse—or men and women?

So, too, with the discussion of Bolshevism. I do not know how things are in America, but in England there has been a ridiculous attempt to suppress Bolshevik propaganda. I have seen a lot of Bolshevik propaganda and it is not very convincing stuff. But by suppressing it, by police seizures of books and papers and the like, it has been invested with a quality of romantic mystery and enormous significance. Our boys and girls, especially the bright and more imaginative, naturally enough think it must be tremendous stuff to agitate the authorities in this fashion.

**A Backbone of Biology**

AT OUR universities, moreover, the more loutish types of student have been incited to attack and smash up the youths suspected of such reading. This gives it the glamour of high intellectual quality.

The result is that every youngster in the British colleges with a spark of mental enterprise and self-respect is anxious to be convinced of Bolshevik doctrine. He believes in Lenin—because he has been prevented from reading him. Sober collectivists like myself haven't a chance with him.

But you see my conception of the college course? Its backbone should be the study of biology and its substance should be the threshing out of the burning questions of our day.

You may object to this, that I am proposing the final rejection of that discipline in classical philosophy which is still claimed as the highest form of college education in the world—the sort of course that the men take in what is called Greats at Oxford. You will accuse me of wanting

to bury and forget Aristotle and Plato, Heraclitus and Lucretius, and so forth and so on.

But I don't want to do that—so far as their thought is still alive. So far as their thought is still alive these men will come into the discussion of living questions now. If they are ancients and dead, then let them be buried and left to the archaeological excavator. If they are still moderns and alive, I defy you to bury them if you are discussing living questions in a full and honest way. But don't go hunting after these still modern immortals in the darkness of a forgotten language. Don't make a superstition of them. Let them come hunting after you. Either they are unavoidable if your living questions are fully discussed or they are irrelevant and they do not matter. That there is a sort of wisdom and beauty in the classics which is incommunicable in any modern language, which obviously neither ennobles nor empowers, but which is nevertheless supremely precious, is a sort of nonsense dear to the second-rate classical don, but it has nothing endearing about it for any other human beings. I will not bother you further with that sort of affectation here. And this college course I have sketched should in the modern state pass insensibly into adult mental activities.

Concurrently with it there will be going on, as I have said, a man's special technical training. He will be preparing himself for a life of industrialism, commerce, engineering, agriculture, medicine, administration, education or what not. And as with the man so with the woman. That, too, is a process which in this changing new world of ours can never be completed. Neither of these college activities will ever really leave off. All through his or her life a man or woman should be fixing or modifying his or her general opinions; and all the time his or her technical knowledge and power should be consciously increased.

**College Extension**

AND now let me come to the second problem we opened up in connection with college education—the problem of its extension.

Can we extend it over most or all of a modern population?

I don't think we can, if we are to see it in terms of college buildings, classrooms, tutors, professors and

the like. Here, again, just as in the case of schooling, we have to raise the neglected problem—neglected so far as

education goes—of economy of effort; and we have to look once more at the new facilities that our educational institutions have so far refused to utilize. Our European colleges and universities have a long and honorable tradition that again owes much to the educational

methods of the Roman Empire and the Hellenic world. This tradition was already highly developed before the days of printing from movable type, and long before the days when maps or illustrations were printed.

The higher education, therefore, was still, as it was in the Stone Age, largely vocal. And the absence of paper and so forth, rendering notebooks costly and rare, made a large amount of memorizing necessary. For that reason the medieval university teacher was always dividing his subject into firstly and secondly and fourthly and sixthly, and so on, so that the student could afterward tick off and reproduce the points on his fingers—a sort of thumbs-and-finger method of thought. It is a method that destroys all sense of proportion between the headings; main considerations and secondary and tertiary points get all catalogued off as equivalent numbers, but it was a mnemonic necessity of those vanished days.

And they have by no means completely vanished. We still use the lecture as the normal basis of instruction in our colleges, we still hear discourses in the firstly, secondly and thirdly form, and we still prefer even a second-rate professor on the spot to the printed word of the ablest teacher at a distance. Most of us who have been through college courses can recall the distress of hearing a dull and inadequate view of a subject being laboriously unfolded in a long series of tedious lectures, in spite of the existence of full and competent textbooks. And here again it would seem that the time has come to centralize our best teaching, to create a new sort of wide teaching

professor who will teach not in one college but in many, and to direct the local professor to the more suitable task of insuring, by a commentary, by organized critical work, and so forth, that the textbook is duly read, discussed, and compared with the kindred books in the college library.

This means that the great teaching professors will not lecture, or that they will lecture only to try over their treatment of a subject before an intelligent audience as a prelude to publication. They may perhaps visit the colleges under their influence, but their basic instrument of instruction will be not a course of lectures but a book. They will carry out the dictum of Carlyle that the modern university is a university of books.

Now the frank recognition of the book and not the lecture as the substantial basis of instruction opens up a large and interesting range of possibilities. It releases the process of learning from its old servitude to place and to time. It is no longer necessary for the student to go to a particular room, at a particular hour, to hear the golden words drop from the lips of a particular teacher. The young man who reads at eleven o'clock in the morning in luxurious rooms in Trinity College, Cambridge, will have no very marked advantage over another young man, employed during the day, who reads at eleven o'clock at night in a bed-sitting-room in Glasgow. The former, you will say, may get commentary and discussion, but there is no particular reason why the latter should not form some sort of reading society with his fellows and discuss the question with them in the dinner hour and on the way to the works. Nor is there any reason why he should not get tutorial help as a university extension from the general educational organization, as good in quality as any other tutorial help.

**Intensive Training of Good Teachers**

AND this release of the essentials of a college education from limitations of locality and time, brought about by modern conditions, not only makes it unnecessary for a man to come "up" to college to be educated but abolishes the idea that his educational effort comes to an end when he goes "down." Attendance at college no longer justifies a claim to education; inability to enter a college is no longer an excuse for illiteracy.

I do not think that our educational and university authorities realize how far the college stage of education has already escaped from the local limitations of colleges; they do not understand what a great and growing volume of adolescent learning and thought, of college education in the highest and best sense of the word, goes on outside the walls of colleges altogether; and on the other hand they do not grasp the significant fact that, thanks to the high organization of sports and amusements and social life in our more prosperous universities, a great proportion of the youngsters who come into their colleges never get the realities of a college education at all, and go out into the world again as shallow and uneducated as they came in.

And this failure to grasp the great change in educational conditions, brought about, for the most part, in the last half century, accounts for the fact that when we think of any extension of higher education in the modern community we are all too apt to think of it as a great proliferation of expensive, pretentious college buildings and a great multiplication of little teaching professorships and a further segregation of so many hundreds or thousands of our adolescents from the general community, when as a matter of fact the reality of education has ceased to lie in that direction at all. The modern task is not to multiply teachers but to exalt and intensify exceptionally good teachers, to recognize their close relationship with the work of uni-

versity research—which it is their business to digest and interpret—and to secure the production and wide distribution of books throughout the community.

I am inclined to think that the type of adolescent education, very much segregated in out-of-the-way colleges and aristocratic in spirit, such as goes on now at Oxford, Cambridge, Yale, Holloway, Wellesley, and the like, has probably

reached and passed its maximum development. I doubt if the modern community can afford to continue it; it certainly cannot afford to extend it very widely.

But, as I have pointed out, there has always been a second strand to college education—the technical side, the professional training or apprenticeship. Here there are sound reasons that the student should go to a particular place, to the special museums and laboratories, to the institutes of research, to the hospitals, factories, works,

(Continued on Page 101)





## THE SALVAGING OF CIVILIZATION

(Continued from Page 17)

ports, industrial centers, and the like, where the realities he studies are to be found, or to the studios or workshops or theaters, where they practice the art to which he aspires. Here it seems we have natural centers of aggregation in relation to which the college stage of a civilized community, the general adolescent education, the vision of the world as a whole, and the realization of the individual place in it can be organized most conveniently.

You see that what I am suggesting here is in effect that we should take our colleges, so far as they are segregations of young people for general adolescent education, and break them as a cook breaks eggs—and stir them up again into the general intellectual life of the community.

Coupled with that, there should, of course, be a proposal to restrict the hours of industrial work or specialized technical study up to the age of twenty, at least, in order to leave time for this college stage in the general education of every citizen of the world.

The idea has already been broached that men and women in the modern community are no longer inclined to consider themselves as ever completely adult and finished; there is a growing disposition and a growing necessity to keep on learning throughout life. In the worlds of research, of literature and art and economic enterprise, that adult learning takes highly specialized forms, which I will not discuss now; but in the general modern community the process of continuing education after the college stage is still evidently only at a primitive level of development. There is a certain number of literary societies and societies for the study of particular subjects; the pulpit still performs an educational function; there are public lectures; and in America there are the hopeful germs of what may become later on a very considerable organization of adult study in the lyceum Chautauqua system; but for the generality of people the daily newspaper, the Sunday newspaper, the magazine and the book constitute the only methods of mental revision and enlargement after the school or college stage is past.

### The Extension of Reading

Now we have to remember that the bulk of this great organization of newspapers and periodicals and all the wide distribution of books that goes on to-day are extremely recent things. This new nexus of print has grown up in the lifetime of four or five generations, and it is undergoing constant changes. We are apt to forget its extreme newness in history and to disregard the profound difference in mental conditions it makes between our own times and any former period. It is impossible to believe that thus far it is anything but a sketch and intimation of what it will presently be. It has grown. No man foresaw it; no one planned it. We of this generation have grown up with it, and are in the habit of behaving as though this nexus had always been with us, and as though it would certainly remain with us. The latter conclusion is almost wilder than the former.

By what we can consider only a series of fortunate accidents, the press and the book world have provided, and do provide, a necessary organ in the modern world state, an organ for swift general information upon matters of fact, and for the rapid promulgation and diffusion of ideas and interpretations. The newspaper grew, as we know, out of the news letter, which in a manuscript form existed before the Roman Empire; it owes its later developments largely to the advertisement possibilities that came with the expansion of the range of trading as the railways and suchlike means of communication developed. Modern newspapers have been described, not altogether inaptly, as sheets of advertisements with news and discussions printed on the back. The extension of book reading from a small class, chiefly of men, to the whole community has also been largely a response to new facilities, though it owes something also to the religious disputes of the last three centuries. The population of Europe, one may say with a certain truth, first learned to read the Bible, and only afterwards to read books in general. A large proportion of the book publishing in the English language in

the seventeenth and eighteenth centuries still consisted of sermons and controversial theological works.

Both newspaper and book production began in a small way as the enterprise of free individuals, without anyone realizing the dimensions to which the thing would grow. Our modern press and book trade, in spite of many efforts to centralize and control it, in spite of Defense of the Realm Acts, and the like, is still the production of an unorganized multitude of persons. It is not centralized; it is not controlled. To this fact the nexus of print owes what is still its most valuable quality. Thoughts and ideas of the most varied and conflicting sort arise and are developed and worked out and fought out in this nexus, just as they do in a freely thinking, vigorous mind.

I am not, you will note, saying that this freedom is perfect or that the thought process of the print nexus could not go very much better than it does; but I am saying that it has a very considerable freedom and vigor, and that so far as it has these qualities it is a very fine thing indeed.

### Free Discussion Impossible

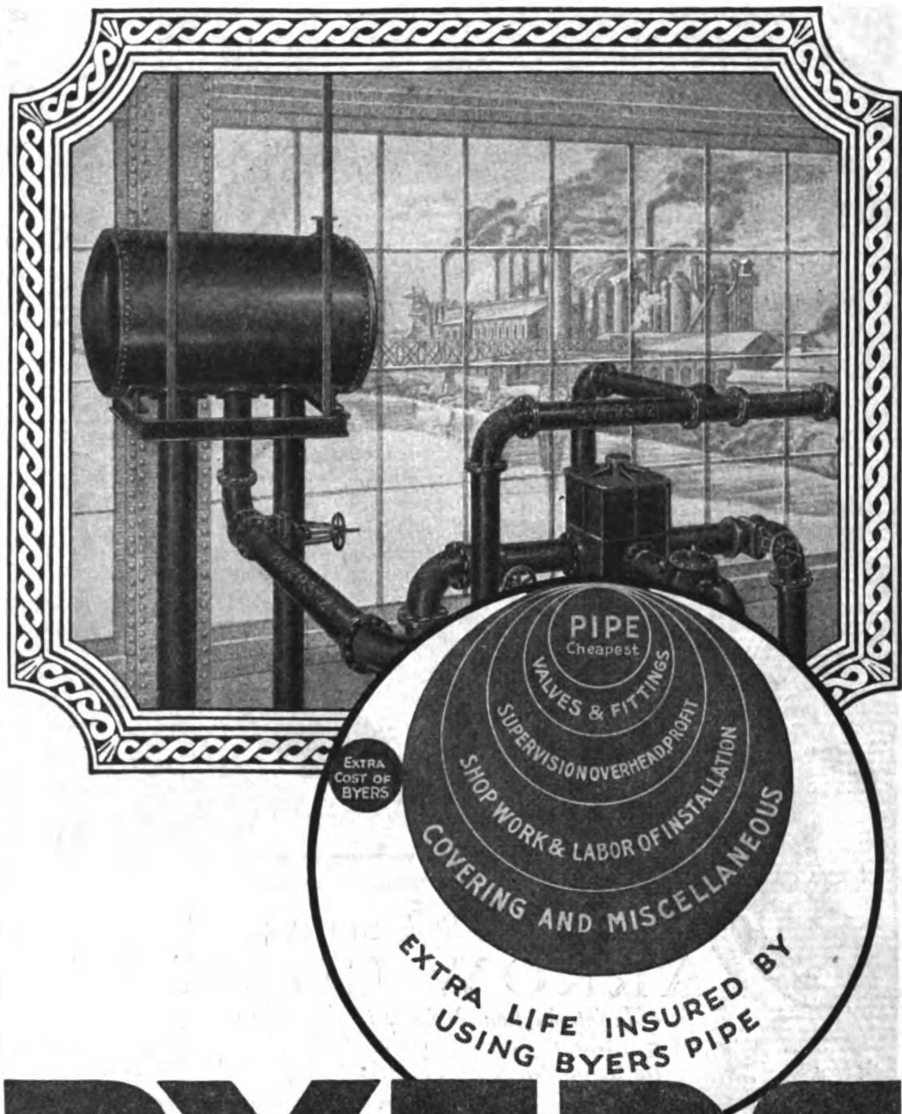
Now many people think that we are moving in the direction of world socialism to-day. Collectivism is perhaps a better, more definite word than socialism, and, so far as keeping the peace, and in matters of transport and communication, trade currency, elementary education, the production and distribution of staples and the conservation of the natural resources of the world go, I believe that the world and the common sense of mankind move steadily towards a world collectivism. But the more cooperation we have in our common interests the more necessary is it to guard very jealously the freedom of the mind—that is to say, the liberty of discussion and suggestion.

It is here that the communist régime in Russia has encountered its most fatal difficulty. A catastrophic unqualified abolition of private property has necessarily resulted in all the paper, all the printing machinery, all the libraries, all the news stalls and book shops becoming government property. It is impossible to print anything without the consent of the government. One cannot buy a book or newspaper; one must take what the government distributes. Free discussion—never a very free thing in Russia—has now on any general scale become quite impossible. It was a difficulty foreseen long ago in socialist discussions, but never completely met by the thorough-paced communist. At one blow the active mental life of Russia has been ended, and so long as Russia remains completely and consistently communist it cannot be resumed. It can be resumed only by some surrender of paper, printing, and book distribution from absolute government ownership to free individual control. That can be done only by an abandonment of the full rigors of communist theory.

In our Western communities the dangers to the intellectual nexus lie rather on the other side. The war period produced considerable efforts at government control, and as a consequence considerable annoyance to writers, much concealment, and some interference with the expression of opinion; but on the whole both newspapers and books held their own. There is to-day probably as much freedom of publishing as ever there was. It is not from the Western governments that mischief is likely to come to free intellectual activity in the Western communities, but from the undisciplined individual and from the incitement of mob violence by various propagandist religions and cults against free discussion.

About the American press I know and can say little. I will speak only of things with which I am familiar. I am inclined to think that there has been a considerable increase of deliberate lying in the British press since 1914, and a marked loss of journalistic self-respect.

But people cannot be continuously deceived; and the consequence of this press demoralization has been a great loss of influence for the daily paper. A diminishing number of people now believe the news as it is given them, and fewer still take



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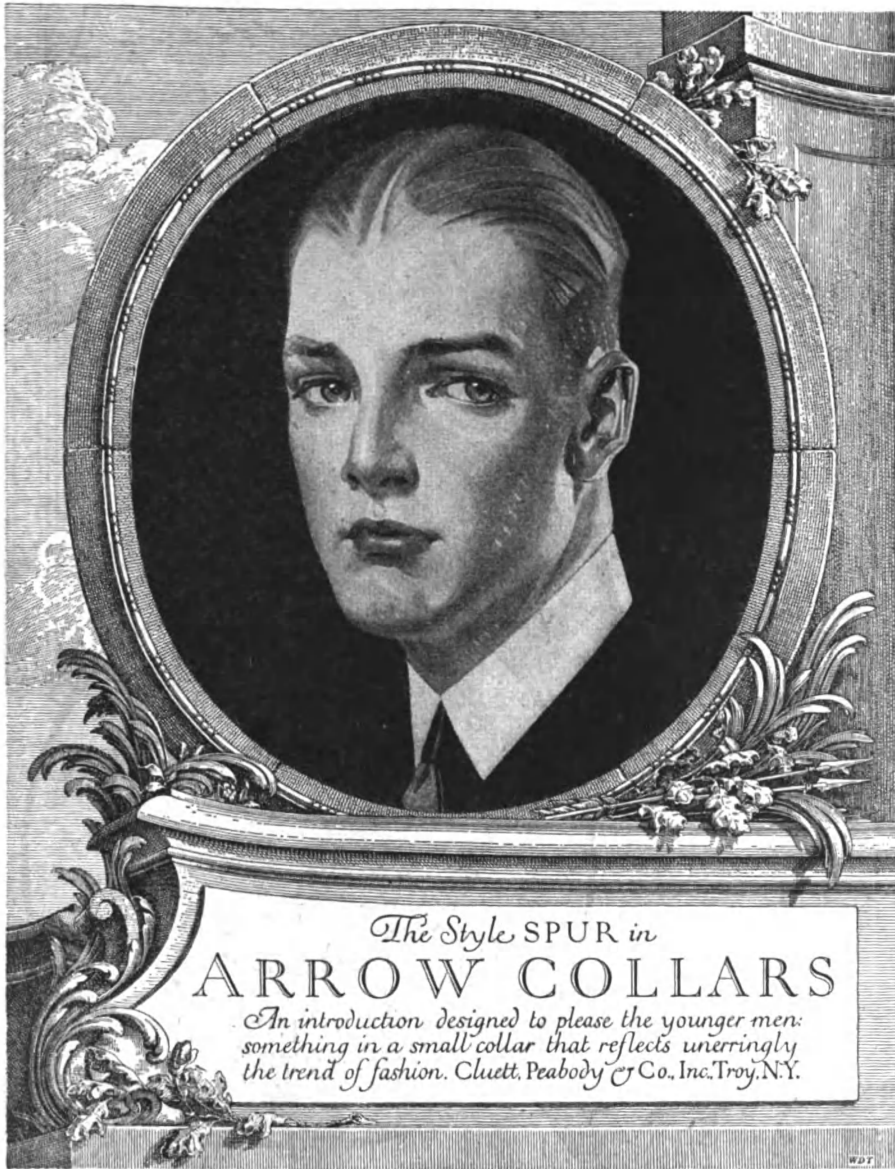
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the unsigned portions of the newspaper as written in good faith. And there has been a consequent enhancement of the importance of signed journalism. Men of manifest honesty, men with names to keep clean, have built up reputations and influence upon the ruins of editorial prestige. The exploitation of newspapers by the adventurers of private enterprise in business has carried with it this immense depreciation in the power and honor of the newspaper.

**Freedom of the Press**

I am inclined to think that this swamping of a large part of the world's press by calculated falsehood and partisan propaganda is a temporary phase in the development of the print nexus; nevertheless it is a very great inconvenience and danger to the world. It stands very much in the way of that universal adult education which is our present concern. Reality is horribly distorted. Men cannot see the world clearly, and they cannot, therefore, begin to think about it rightly.

We need a much better and more trustworthy press than we possess. We cannot get on to a new and better world without it. The remedy is to be found not, I believe, in any sort of government control, but in a legal campaign against the one thing harmful—the lie. It would be in the interests of most big advertisers, for most big advertisement is honest; it would be, in the long run, in the interests of the press, and it would mean an enormous step forward in the general mental clarity of the world if a deliberate lie, whether in an advertisement or in the news or other columns of the press, were punishable—punishable whether it did or did not involve anything that is now an actionable damage. And it would still further strengthen the print nexus and clear the mind of the world if it were compulsory to correct untrue statements in the periodical press, whether they had been made in good faith or not, at least as conspicuously and lengthily as the original statement. I can see no impossibility in the realization of either of these proposals, and no objection that a really honest newspaper proprietor or advertiser could offer to them. It would make everyone careful, of course, but I fail to see any grievance in that.

The sanitary effect upon the festering disputes of our time would be incalculably great. It would be like opening the windows upon a stuffy, overcrowded and unventilated room of disputing people.

Given adequate laws to prevent the cornering of paper or the partisan control of the means of distribution of books and printed matter, I believe that the present freedoms and the unhampered individualism of the world of thought, discussion and literary expression are and must remain conditions essential to the proper growth and activity of a common world mind. On the basis of that sounder education I have sketched in a preceding paper, there is possible such an extension of understanding, such an increase of intelligent cooperations; and such a clarification of wills as to dissolve away half the difficulties and conflicts of the present time, and to provide for the other half such a power of solution as we, in the heats, entanglements and limitations

of our present ignorance, doubt and misinformation, can scarcely begin to imagine.

I do not know how far I have conveyed to you in the last two papers my underlying idea of an education, not merely intensive but extensive, planned so economically and so ably as to reach every man and woman in the world.

It is a dream not of individuals educated—we have thought too much of the individual educated for the individual—but of a world educated to a pitch of understanding and cooperation far beyond anything we know of to-day, for the sake of all mankind.

I have tried to show that, given organization, given the will for it, such a worldwide education is possible.

I wish I had the gift of eloquence so that I could touch your wills in this matter. I do not know how this world of to-day strikes upon you. I am not ungrateful for the gift of life. While there is life and a human mind, it seems to me there must always be excitements and beauty, even if the excitements are fierce and the beauty terrible and tragic. Nevertheless, this world of mankind to-day seems to me to be a very sinister and dreadful world. It has come to this—that I open my newspaper every morning with a sinking heart, and usually I find little to console me. Every day there is a new tale of silly bloodshed. Every day I read of anger and hate, oppression, misery and want—stupid anger and oppression, needless misery and want—the insults and suspicions of ignorant men, and the inane and horrible self-satisfaction of the well-to-do. It is a vile world because it is an undereducated world, unreasonable, suspicious, base and ferocious.

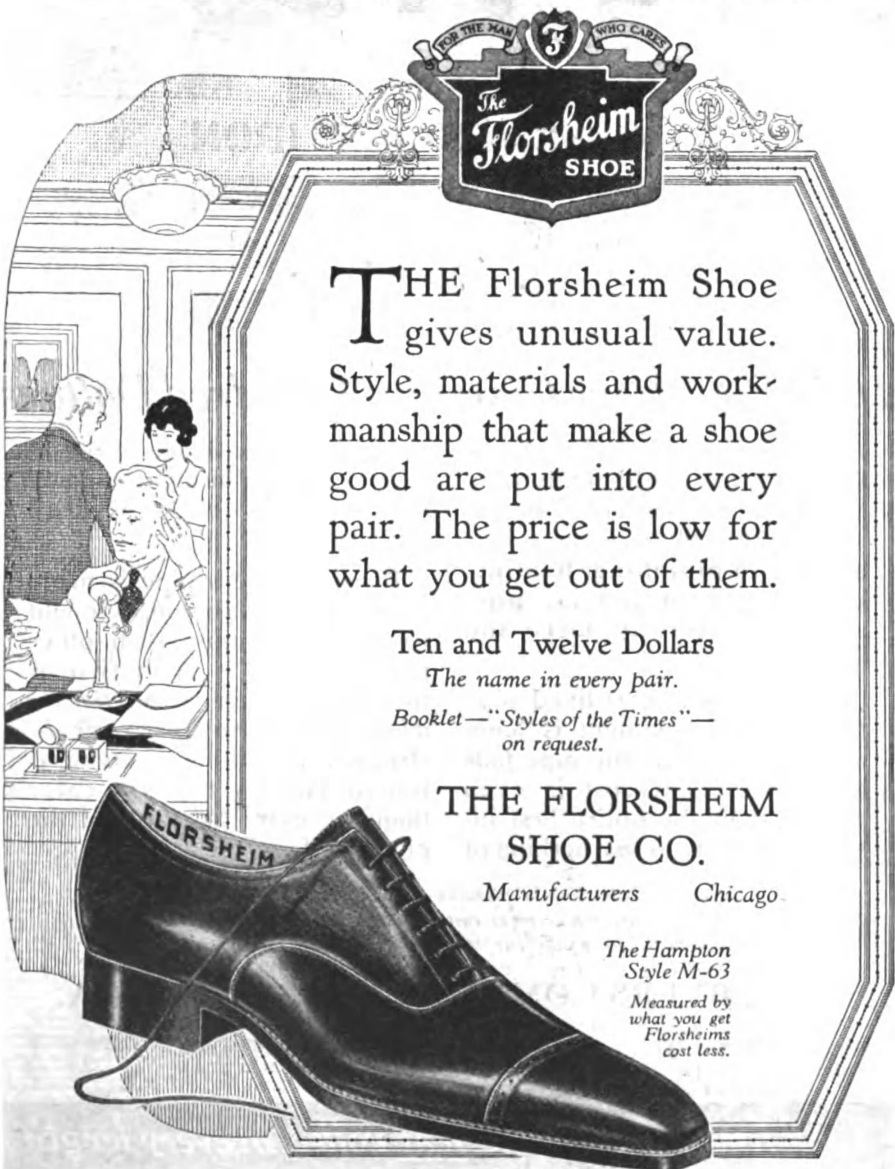
The air of our lives is a close and wrathful air; it has the closeness of a prison—the indescribable offense of crowded and restricted humanity.

**Locked on the Inside**

And yet I know that there is a way out. Up certain steps there is a door to this dark prison of ignorance, prejudice and passion in which we live—and that door is locked only on the inside. It is within our power, given the will for it, given the courage for it—it is within our power to go out. The key to all our human disorder is education, comprehensive and universal. The watchword of conduct that will clear up all our difficulties is the plain truth. Rely upon that watchword, use that key with courage, and we can go out of the prison in which we live; we can go right out of the conditions of war shortage, angry scrambling, mutual thwarting, and *malaise* and disease in which we live; we can go right out into sunlight, into a sweet air of understanding, into confident freedoms and a full creative life—forever.

I do not know—I do not dare to believe—that I shall live to hear that key grating in the lock. It may be our children and our children's children will still be living in this jail. But a day will surely come when that door will open wide, and all our race will pass out from this magic prison of ignorance, suspicion and indiscipline in which we now all suffer together.

Editor's Note—This is the last of a series of six articles by Mr. Wells.



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