

# Among Men who Work with Hand or Brain



The Week's Progress. Review of Recent Advances in Science and Industry.

SUNDAY, MAY 20, 1906.

They say they have seen the ethereal body, one of man's subtler bodies interpenetrating the dense physical body. The to have seen it with a higher vision and the occidentals Visible. are now seeing it by the aid of instruments. In being able to see the skeleton of a live person by Röntgen rays we have gone far to surmount difficulties in making

out the shadow of the ethereal body. A hazy, semi-transparent mass surrounds the bones in a skingraph which seems to invite definition by simple methods of research requiring little more than a better understan offices of the different rays of light to give us a glimpse of the man that survives the mortal easement. The ethereal body, erroneously termed the soul, seems to be a con pound of those electric corpuscies of which matter is supposed to consist, with the un-known principle of animal life, and it is ob-viously a connecting link between mind and matter. A discovery of this sort is calculated to revolutionize the mental sciences and cor-rect many erroneous ideas. It particularly, is important to ascertain how the ethereal body acts during life. Many doubt the ex-istence of any inner form of this kind. But it is an established belief in the east, especially in India, handed down from ancient days. It is difficult to see how their knowldge could have been so complete, even including the fact that the ethereal body never grew old after attaining maturity, unless they had been able to catch sight of the inner

Even the eternal rocks are being made to order in 1906. The Germans are having an artificial pumice stone made of sand and clay which is Artificial upposed to excel the genu- Pumice ine article in durability. There are five different makes. The first is either hard or soft with

a coarse grain and used for leather, waterproof garments, and the woolen and felt industry. The second can also be supplied hard or soft. It has a medium grain and is mainly used for stucco and sculptural work; also for rubbing wood before painting. The third is soft, of fine grain, and is recom ed for polishing wood and tin. The fourth is of medium hardness and fine grain and gives wood the right polish before being finished with oil. The fifth is hard and of fine grain and used for polishing stone, especially lithographic stone. The manner of using is the same as for natural pumice stone. For wood it is first used dry, afterwards mixed with oil.

There is a new theory of the earth's interior. It is believed by Mr. Beresford Ingram, a physicist of England, that the earth embraces three concentric spheres, or three spheres within spheres. The

Within

Spheres. solid nucleus he supposes to be between \$,000 and 7,000 miles in diameter and this to be surrounded by a liquid substratum, outside of which is the crust, variously estimated at 70 to 2,000 miles in thickness. More than two centuries ago a similar heory, including the slow rotation of the inner solid sphere on a different axis from that of the entire globe, was held by Dr. Edmund Halley to account for the changes in the earth's magnetism. The axis of the nucleus was thought originally to have been that of the entire globs. The earth's internal heat, it is now pointed out, may be accounted for by the friction of the differently rotating

Oats, peas, beans, and barley grow better, it appears, when they have been fertilized with pure sulphate of manganese. The small quanti- Manganese ties of manganese shown by Sulphate

chemical analysis in animal Fertilizer. and vegetable substances have been looked upon as accidental and unnecessary. Recent investigations, however, have tended to prove that the metal is to dispensable to the living cell, and Mr. Bertrand, a French experimenter, has found marked fertilizing effect, an application of about fifty pounds to the sere giving an increase of 22.5 per cent in a crop of oats. The erop from the manganese fertilizer, however, is shown by analysis to contain no more f the metal than the crop from other soll. the plant seeming to require a certain definite

Will the oyster work? Be he in jest or

earnest, same or unsound, there is one O. Greenburg who expects to Proposed ' displace gasoline motor pow-Oyster er with the spicure's friend, the bivalve. Mr. Greenburg Power. believes that no animal is better muscled or more powerful for its weight than the oyster. To put this power to practical purposes he has experimented a number of years, and now states that he can use it for locomotion. The principle whereby the device works is that of the expansion and contraction of the muscles of the oyster. By means of an electric current the muscles of the burly little animal may be made to contract and to expand, and a scheme has been devised which at least for the present is a secret. The movement of the oyster drives a piston with sufficient force to run a car at a good-rate. Various sorts of oysters can be used, and those grown on the coast of India, weighing sometimes 300 pounds, are

Decimal weights and measures are in order for Uncle Sam after July 1, 1908, according to Dr. A. G. Bell, who has pointed out that all civilized Metric countries with the exception System of the United States and for U. S. Britain and her colonies have

suggested as especially useful.

adopted the simpler and more scientific decimai system. By reference to the decimal system of coinage Dr. Bell has provided convincing instances of the simplification possible with it in the conversion of units, and explained that the United States, when it changed from the old system of pounds, shillings, and pence to dollars and cents did not adopt the metric system of weights and measures because the latter, as we know it. did not appear until after the American coinage act of 1792. The facts that our whole system of arithmetic is decimal, that no diffloulty whatever is experienced by ordinary workmen in the use of the metric systemprovided there is no question of converting their measurements, and that the use of the metric system need not mean the use of new. ools-were all clearly explained.

### "Cutting Corners" on Clock Business Man's New System. By Louis Weaver.

many other men as naturally bright and as ambitious as he have failed ascribes his success to a system which he calls "cutting the corners on the

Any man who follows his system cannot fail to have greater success in whatever line of endeavor he is engaged in. The system is simplicity itself, can be used without the payment of royalty, and is neglected probably because it is so obvious that few people think that such a simple thing can have such beneficient results

The man who has almost doubled his inome by its use and who is enthusiastic in its favor says it is based upon the truism that time is money, and consists of coining money out of time that under ordinary conwould not be used for the purpose of forwarding his business interests.

A Minute Here and There.

utilise for the purpose of getting ahead every possible moment of the day he was wont to sleep at least nine hours a night. The only times he missed his nine hours were occasions when he staid up too late the night before. Since the installation of his, new system he never tries to get more than eight hours' sleep. Any physician will say that eight hours' sleep is better than ten, and so Mr. Business Man not only has an extra hour to give to his working day but he is in better physical trim. He used to dawdle over his bath. Now he

CHICAGO business man who has had clips three minutes in that function of taking remarkable success in a field in which a shower, and he feels better in consequence. Six minutes he has eliminated from the time over his paper at the breakfast table, and reads it thoroughly later in the day. In the putations instead of gasing out of the window. He does not use the smoker now on his way to work, and finds his head clearer as a result. A heavy cigar after breakfast is a

orife that he is better off without His office hours are not changed, and his hour for luncheon remains the same. But instead of lunching with a crowd of " good fellows," as he used to do, he takes his lunch now with men who are engaged in his own of business. He picks up a great deal of important information at this noon hour. On his way home at night he reads the papers on the car, instead of losing that time, and when he gets home he is ready for hisdinner, a book and a pipe, or the theater, He has also set in motion a system of ab-

nunctuality in keeping appointments. and figures that each day he saves almost an nates do likewise. His watch has become his mentor, and he has discovered that while there is nothing so easy to squander as time, there is at the same time nothing which, saved up frugally, pays such heavy returns. He commends his system to those busy men with many sides of the work.

who say that they haven't time enough to do all they should. He says that there is plenty of time, but the principal trouble is that men

# Hotels Offer Good Opportunities for Many Kinds of Women Workers.

of a better term may be designated as womanly, where she can expand and work not ideas the can expand and work out ideas, she will find it as a house-

keeper in a hotel. Many a woman used to keeping house for herself, suddenly and through peculiar force of circumstances has been thrown on her own resources, and not wishing to enter the ndustrial world, succeeds in earning a good living as housekeeper in a hotel. The experience she has gained as keeper of her own

ousekeeper, so we inserted an advertisement in a Sunday paper. Monday following we reeived 150 answers. I feel certain that if we had places for every one not more than five could have done the work satisfactorily."

Age and Experience Valuable.

This work cannot be learned in a day. It years' of experience. One who is working to gain experience need not feel that by the time she wins what she is struggling for she will be too old to enjoy the fruits of her labor. Her value will not decrease with increasing years. As a successful hotel mana-ger declared on being questioned as to what were the requisites for a successful house keeper: "That's a difficult question to answer. But I do know if I had to choose between two women, one of 35 and the other 50. I should give the preference to the older, though they both had the same kind of ability. In this line of work years attract, not ability and judgment, and I am certain that these qualities expand with years."

Many of the most successful housekeepers begin as chambermaide and work their way A housekeeper in one of the larges is in this country began as a char maid. After a time she was promoted to inspector, later made an assistant, and then a housekeeper. When asked to what she atknow that I have been successful, but if I have I suppose its because I have come in contact

Served as a Trained Nurse. luncheons, and receptions day in and day out,
Another successful housekeeper served as her duties are heavier. She must see that the a trained nurse in a family for many years, banquet rooms and luncheon rooms are kept

learned that his hotel needed a new housekeeper. He believed that a successful nurse would be the right woman for the place and urged her to accept the position. This woman says: "Experience in nursing will avail much in teaching one to be a good housekeeper, but I found myself learning some-thing new every day. Take the simple illushome mow stands her in good stead.

But, as with other places that are worth while, the supply is greater than the demand, though this condition is offset by another fact that good housekeepers are simost as scarce as the positions. As a hotel manager said the other day: "We were in need of a to learn how they do it, and often when I have a few minutes to spare I help a maid make a bed, just to see how it is done.

The machinery of hotelkeeping is compli-cated, and the housekeeper is expected to keep a good share of it in running order. She often has from thirty to fifty men and we inder her charge. This number includes scrubwomen, maids, housemen, painters, up-holsterers, and carpenters. She must begin her day's work at 7 and it does not close as long as any one needs her.

Has Much Responsibility.

At a moment's notice she may receive word from the manager to get a suite of five to seven rooms ready in two days. This means she must get scrubwomen, paperers, carpenters, and maids ready to refurnish these rooms in two days. When business is rushing she has many such suites to get ready in one week's time. She is responsible for the appearance of the bedrooms and laundry and has full charge of the linen room. Though she is assisted by two or three girls who do the mending, sewing, and the assorting of linen for the house, each week she looks after 700 to 800 towels, 800 curtains, 700 napkins, linen at the end of the week she was given at the beginning. The dining room linen is an important consideration; It is not unusual to have fifty napkins make a sudden disap-

Does Buying in Family Hotels. In the winter, when there are parties, luncheons, and receptions day in and day out,

has this to do in the ordinary family hotels. She buys all the wall paper, the curtains and linens, and this is no small task. She must have considerable knowledge of materials, for people who live in a hotel, year

In large hotels the household furnishings

In and year out want their apartments as attractive as their own homes. They expect carpets to harmonize with wall papers and have ideas when it comes to a question of curtains, A housekeeper must use tact and judgment with maids. If the average w with spine easy, turn of the hand give it a who keeps house finds it no easy task to get

keepers find it a task to manage from twenty to fifty. Many girls prefer to work in hotels because they have their work planned for them, are expected to do so much and no more, and when their work is finished their time is their own.

### Girls Prefer Hotel Work.

An one housekeeper said: "Yes, we keep our girls for years, because they know what their work is, and are put on their honor and held responsible. I never ask a maid to do anything I should hesitate about doing. Complimenting a maid occasionally for work well performed acts as a wonderful' atimulant for better work."

When it comes to a question of maid or guests the housekeeper often is presented with knotty problems. She cannot afford to insult guests in the house, nor discharge a good maid without careful consideration. It is a frequent occurrence for people living in hotels to suspect maids of having taken their belongings, but in nine out of ten cases the stolen articles turn up in a few days, and the woman explains that she has been mistaken.

The housekeeper has little time for herlittle neglected shopping. Her vacations are few, for hotels keep open all the year round. But she finds that her con many. The wages are good; she may start on \$50, but if she is competent and experi-enced she can command from \$75 to \$100 a month. Her work is dignified, and offers variety and gives her opportunity to meet new people. And, best of all, her advancing years are in her favor. All things being equal, she is considered a more valuable

### Worst Trade in the World Is Wall Paper Color Mixer. inch with colors as variegated as. Joseph's dreams of even a profes coat ever dreamed of being, drippings from poser. At night he goes

Possibly it wouldn't be the worst trade in the world if the matters of hours, salary, and changes for any were to be considered as offsetting the things that go to make an occupation unpleasant. The pay sometimes runs as high as \$100 a week. The hours run on an average eight and one-half a day. The trade is so far from overcrowded that every competent man in it is known to practically every employer in the country. Every man in it is so sure of work, if he stays in the localities where his trade is of use, that life is to him one grand, sweet song of employers trying to hire him from each other. The demand always exceeds the supply. And employers

customers. BUT-it is the worst trade in the world, just the same. The favorable things menfeatures of the work. The economic conditions of the workers in it as a class may properly be considered as near to the ideal engaged in this trade do is so dirty, so foul, so unwholesome, and so generally repulsive to the normal human being that it merits the title that knowing ones bestow upon it: Combines Foulness of Foulest Trades. The worst in the world.

treat their men as considerately as they do

The trade is that of the wall paper color

By William Giles.

Makes Beauty from Foul Things.

For some strange reason or other it has color mixer has the unfavorable features of been decreed in the alchemy of nature that all three of these trades incorporated in his the pretty things of the world must spring , work, and many, many others besides. beginning from the foul. The brightest colors come from the most deadly and mix colors. The colors that he must mix most loathsome compositions of chemicals, etc. The fairest shade of ink or paint material was once in the foulest form of protoplasm. The men who handle these things in their original forms have work that is

tioned do not compensate for the unfavorable ers work hard and die quick. But the men who mix the colors that go to make ink for wall paper work much harder and die much quicker than any of these-unless as this mundane sphere offers to any wage they quit their trade. They have without earners. But the actual work that the men question the foulest skilled work in the world -and they admit it and curse because

scrapes the inside of a gas tank after the

leads, and colors of any kind are "up that are extremely sickening to the stomach. against it " in the matter of having unpleas. The man who superintends the boiling of The man who superintends the boiling of pleasant for the mixer. waste greases in a soap or grease factory has a line of work that nauseates with every breath of its foul odors. But the wallpaper The work of the color mixer is obviously to

come to him in many different ways. There are dry colors, wet colors, and there are other ingredients. It is the "other ingredients that count. Their names are legion, and liquid form, mainly, and they must be Color grinders, paint mixers, and inkmak- handled by hand to insure proper mixing.

Work in Terrible Heat.

of a factory. This is because the boller room is there, and heat is a paramount factor in the work of preparing the coarse inks of wallmixing all is done in a room where the temthan one in which the average person of sane The man who cleans catch basins has a ideas in regard to heat would be pleased to work. Vats, tables, mills, caldrons, and Workers in inks, ink compositions, paints, gas has been emptied therefrom has duties floor usually is covered to the depth of an in air that is polluted beyond the wildest world pails on mankind.

above all is the odor which makes life un-

Clothes Discarded When Work Starts. Coming to work the mixer, if he be at all

careful concerning his person, removes his outer and under clothing and enters his working clothes, which are in the main composed of a pair of overalls. If he place style above comfort he will finically include an undershirt in his wearing apparel for the day's work. But most mixers are not finical. Still, there is one advantage in the shirt propozition, it is easier to peel off an ink bespattered undershirt than to bathe the upper part of the body. But the sleeves in the shirt are strictly untenable. It is impossible to drive a sleeve covered arm into a slimy, - men under him for what they do. sticky mass of colored ink and knead and . It does not require any particular talent

ed by the naked limb.

the vats, caldrons, and mills. And over and blows with a face that is nearer the color of rank, sickly sea weed than a healthy physlognomy, and his hands and wrists are steeped through the skin in a combination of red, green, yellow, black, blue, etc. If he happens to lay off from work for a few weeks he gets this worn off. It takes longer to take the green out of his face.

Pay High, but It Is Earned.
For doing this he is paid from \$20 a week to
\$100. ranging according to his ability as a
handler of colors and as a producer. A head color mixer seldom receives less than \$50 a week. He earns his salary. He helps to make or break a firm's business. He is an artist in his way, although he would probably curse scornfully if this were intimated

The mixer usually works in the basement handle it with as much facility as is accord- to learn to do what they do. Ain body can learn it in considerably less time From the time the work is started in the than is required to master the ordinary trade. morning the work of the mixer is one con- if he gets the chance to try it. When it is paper making for the presses. The work of stant revel in the kind of endeavor at which learned a man practically is sure of steady the foregoing has slightly hinted. He stirs work, and he should earn \$30 a week whensmoky, smelly compositions with his bare ever he works. Most color mixers don't work hands, bends over vats full of concoctions all the time. "You got to go out and forget of decomposed animal and vegetable matter it once in a while, anyhow," is one motto that stink higher than any Pittsburg divorce that the guild swears by. Even the distincequipments of many kinds are at hand. The scandal, and for hour after hour breathes tion of belonging to the worst trade in the

### Girl Milliners Make Hats of Chiffon at \$1.50 the Dozen. By Grace Clark.

"trimmed" only and that bring 10 cents

aptece. The next day she had knocked off

HE woman who covers for herself a wire hat frame with carefully shirred chiffon underneath, and sews a spiral "flat" of straw to put over the usually draws a breath of relief when she is through and feels that she has accomplished a good afternoon's-If not an all day's

That she thinks so is because she does not know anything about mechanical millinery. Mechanical millinery, beginning with the ready to wear" hat, descends the scale to the flower trimmed chiffon chapeaus, which are furnished by mall order bouses in hundreds of dozens. What it offers to the wage earner, with good luck and a place where the help is treated generously, is that hats like the one described are paid for at the rate of \$1.50 a dozen. The same rough muslin covering to be first stretched and sewed all over the hat, the same crown of soft straw to be sewed round and round and tacked over, and the same shirred lining-the only difference being that instead of having to do the shirring herself the professional receives a piece of chiffon into which the threads are run by machine and are all ready to draw

up as it is put on the hat. Yet there are those who are making what they call a good living out of this kind of millinery, the year around, and others who use it through the busy season as a means of learning the "trade." There are still others who become such expert human machines copyists" that, with short lunches and a large amount of night work, they can earn during the season as high as \$25 a week.

How the Beginner Works.

If you were to go into one of these places as a beginner you would be set down at a iong table loaded with trimmings and furnished with spools only to be described as life size, and there would be handed out to you a lace or chiffon affair of white which looks as if it had seen its best days, which after all is not wonderful when it is seen how it is snatched, purioined, and begged for by eager copyists. You also would get a roll containing flowers, ribbon, and lace for copying. even down to the scrap of velvet for covering the bandeau, much as you would at a

With these you would be expected to make an accurate copy of the model, and each day you worked you would begin at 8 and stop at 6, with a half hour off for lunes

This is what is called " learning," and for been on piece work three days; the first day learning you are paid \$2 a week. During this she made \$1.50 doing Leghorn hats that are time, if you are half way clever, you will make from two to three dozen hats a week. In a couple of weeks you will go on "piece work early and had made only \$1, and to-And then, even with a discouraging chiffon model-with a chiffon crown pulled in a honeycomb of shirrs, and maddening little straw braid ruffles to gather around the brim, besides coverings of Swiss and lace straw underneath, you will do six or seven of these In a day, and because they are difficult you will get as high as 15 cents apiece for them.

Full of Hope and Good Nature. 'I know I can easily make my \$2 a day when I get started," said Marie, a quick notioned little girl who looked about 16 and

who was cheering herself along under a diffi-

cult problem with crown of spiral lace edges,

day-" Well, I guess I'm stuck said cheerfully. "You see I got a poor draw," but it, will go better tomorrow." Marie has to take care of herself so it will be necessary for it to be better tomorrow. At the same time that you learn mechanical millinery you learn optimism. Good nature of the kind that isn't feazed by handling materials and shapes that "you can't get hold of," and optimism that refuses to see the day in any light but that of the full sum that is to be made in the end, and all setbacks as only part of the day's work, is the only force strong enough to dig out a salary

as high as \$15 a week from mechanical millinery.

has promising material is shown by the fact work on." that there are those struggling in the labyrinth of chiffon hats at 15 cents apiece who are good naturedly ready to stop and help the beginner who hopelessly tries to see some point of connection between the model that is set before her and her bundle of

Like to Make Pretty Things.

After all, from the point of view of those having done certain kinds of work before, there is some cause for cheerfulness. "I've tried working as dining room girl," said one, "but the hours are too long. You are up so early in the morning and get to bed so late at night. And then there was the factory at the Western Electric. I got fine

manager tells you when you first come, "It raise of \$1.50 later. But that is so dirty that all depends on yourself." He also says that girls just come and go. They only work a he can tell what they are going to do by the little while and then they can't stand It. corners of their mouths; "the girl working This is such beautiful work if one can only with downcast face never gets up." That he go fast enough-it's something pretty to

That there are possibilities for one who has a quick eye and nimble fingers-" if she has willingness to work," as the manager says-is shown by those who survive the tests of the learning room and are put in the rooms where better hats are made. Some of the girls here are kept busy all the year around, and for some hats are paid parquet prices of 20 and 30. The hats for which \$1.50 a dozen are paid are often advertised as " work that can be done at home." They are sent for and returned by the worker and put up by the house in large band boxes. They are done by milliners who have given up business to marry. They have learned in the same school and it is nothing uncommon for them to do a couple of dozen of the 'chiffon and straws" in a day.

## Bookkeeper Tells of Methods of Old Days.

been keeping books for sixty-six years. and at the age of 83 he is still at the

to interest all bookkeepers and business men. He says that he commenced handling the day book and ledger when he was but 17 who calls with his money in his pocket and years old, and from the days when business is allowed to carry it away with him may men opened accounts to be commenced at hog killing time and lasting until the next harvest." In that period all purchases were charged, and settled up with the gathering

Mr. Goodhus says that from the earliest days of his bookkeeping experience he has stuck to the custom of keeping his books posted so that he could tell a man what he owed up to "last night." He says thousands of dollars have been lost to the merchant because he was busy and could not tell just what amount was coming from a customer who called to pay up. "My books are a little behind," the merchant would say. " Come in a few days and we will have your account

Goodhue of Michigan City, Ind., has By J. L. Graff.

The number of men of this class who never come back is much larger than the ordinary He tells of a life of accounting that ought business man would think. Only the bookkeepers seem to have an accurate idea what this class of losses amount to. The man fall from any of a hundred different causes to reappear, and yet be an honest man. In all of the time that this octogenarian

accountant has been keeping books he has that in late years the journal has been discarded to a large extent, that the day book or blotter entries are journalised direct to the ledger. He says that few people keep their books on the double entry method. "If you were to start around the block," he ventured. " and were to examine all the books kept by the merchants themselves you would find not more than two who have pted that plan. Most of them are charging on one side of a ledger page and crediting

books there was no such thing as steel pens. He used quills, and was obliged to have a specially sharp knife to keep them in order. Not a sheet of blotting paper could be found in the land, the correspondence and the ledger and day book pages were blotted with sand kept in a receptacle for that purpose. All the ink was imported.

In a good many particulars there is absolutely no change in the bookkeeping of today from that of more than a half century ago. The books are about the same as they were then, save the innovations in the matter of leaves and other similar features. Books cost about as much now as then.

When Mr. Goodhue had a commercial bustness of his own he kept his own books. He has been bookkeeper for some old and well known mercantile concerns, that handled an immense business.

Mr. Goodhue was born at Warren, O., came to Indiana in 1837, and has been here ever since. He uses no adding machine other than his head, and he writes a fland that is as steady and clear as it was forty or fifty years

Musician Milliner Out of Joh. One milliner married to a musician came to one of the factories for work when her hussand was out of a job. "Why don't you have him do millinery, too?' she was asked. What! Him make a hat?" said the

woman. "Of course. He can do it," she was assured. He did, practicing on the white straw and chiffon and turning out his seven dozen a week until he got back his job.

The question, "How can I learn?" can be answered here-" with \$2 a week when learning " by the woman who has courage to face the conditions, as easily as at the more expensive schools. Here as nowhere else is seen in its true place the quick, rough skill, the "clever slighting" combination which is often the hardest to grasp by the woman

who could afterwards dasign attractively.

And—as to speed, without mastering which
the most talented artist cannot get started to making money out of her creations, it is here, where being quick and being able to eat and live, are all one and the same, that one gots the first inspiration of its meaning. The aspirant to high class millinery will at least not lose anything of the understanding of the wider scope of the work she is under-taking if she takes the first lesson in the mechanical part in the factories.