

## EDIBLE MUSHROOMS.

GUY ELLIOTT MITCHELL.

"Mushroom Growing and Mushroom Spawning" is the title of a very interesting bulletin just issued by the Department of Agriculture. This is a subject which, to most farmers, is surrounded by a haze of mystery and hesitation, owing to the fact that there are a number of species of mushrooms which are poisonous.

### Determining the Poisonous Fungi.

The first question a man will ask is "How can I tell a toadstool from a mushroom?" The Department answers this question by saying that you can not tell a mushroom from a toadstool because mushrooms are toadstoos. The general belief is well-nigh universal in this country that the fleshy umbrella-shaped fungi are divided into two classes—mushrooms, which are edible, and toadstoos, which are poisonous. The assumed difference does not exist. All fleshy umbrella-shaped fungi are toadstoos; a number of these are edible, and commerce applies the name mushrooms; but not a small number of other toadstoos are edible, and a great many of them, probably the



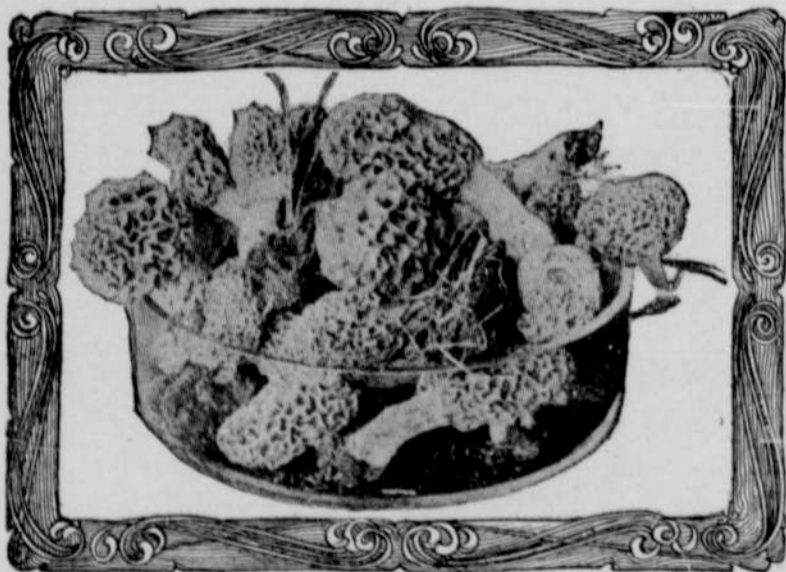
THE FLY AGARIC. Deadly Poison and Closely Resembles the Edible Mushroom.

most of them, are not poisonous. Ability to distinguish poisonous varieties from those that are edible is not easily learned. On the other hand those who wish to collect fungi for their own consumption or the market must begin by committing to memory the distinguishing marks of a few species. Until this is done one must not venture to trust to general rules for distinguishing good species from bad. There is one rule, however, which should be applied: no one, unless decidedly expert, should collect for eating the buttons, or small, unexpanded fungi, since in their young condition it is often impossible, even for experts, to recognize what the species is. The Department of Agriculture has issued a number of bulletins on mushroom growing which give certain rules for determining the difference between the edible common field mushrooms and those that are deadly poisonous. This subject is particularly treated in the Year Book for 1917; reprints of this portion can be obtained from the Division of Publications.

The mushroom in commerce is practically the fruit of the mushroom plant, and not the plant itself. The plant proper is a white or bluish white mold—the spawn—that grows in fields and manure piles. Comparing the mushroom to an apple tree, we have the trunk, branches and leaves buried in the ground, leaving only the apples themselves standing above the ground. The toadstool, like the apple, contains the means of reproduction—the apple contains seeds, while the toadstool is filled with microscopic, dust-like bodies having the same function as seeds.

### Important Crop Abroad.

Mushrooms are extensively grown in England and France, and to a limited extent in Belgium, Germany and in many other countries. Paris, however, is the center of commercial production. In the vicinity of that city the culture of mushrooms is now almost entirely



A PLATE OF THE FINEST EDIBLE MUSHROOMS.

confined to the underground limestone quarries or cement mines. These caves are not unlike some of our mines with galleries or halls radiating in every direction. Most of these are well ventilated by shafts, protected at the surface by wooden towers. Until Paris refused to allow visitors to these caves, some of which are miles in length—the cultural methods being carefully guarded. Even to-day it is not easy to obtain permission to make a casual visit to the mushroom caves. The total production of mushrooms in Paris alone in 1911 amounted to more than 10,000,000 pounds.

In the United States fresh mushrooms have only recently been of any importance commercially, although they are not grown to any extent.

Many people who would enjoy mushrooms added to their menu are deterred because of the difficulty of obtaining them except at considerable expense, and because of unfamiliarity as to methods of home culture.

Mushrooms are easy to grow, and beginners are often as successful with them as are those having an extensive experience. Aside from preparing the manure and making up the beds, it is a clean crop to handle and occupies little space. The gathering, sorting, packing and marketing of the mushrooms can be easily taken care of by the woman of the household.

Cellars or basement rooms where the temperature in the winter does not go below 55 degrees or does not rise above 65 degrees are suitable places for growing mushrooms. It is hardly advisable to grow them under the living part of the house, since the odor of the manure will permeate the dwelling. Stables that are not too cold in winter are suitable.

### Preparation of the Beds.

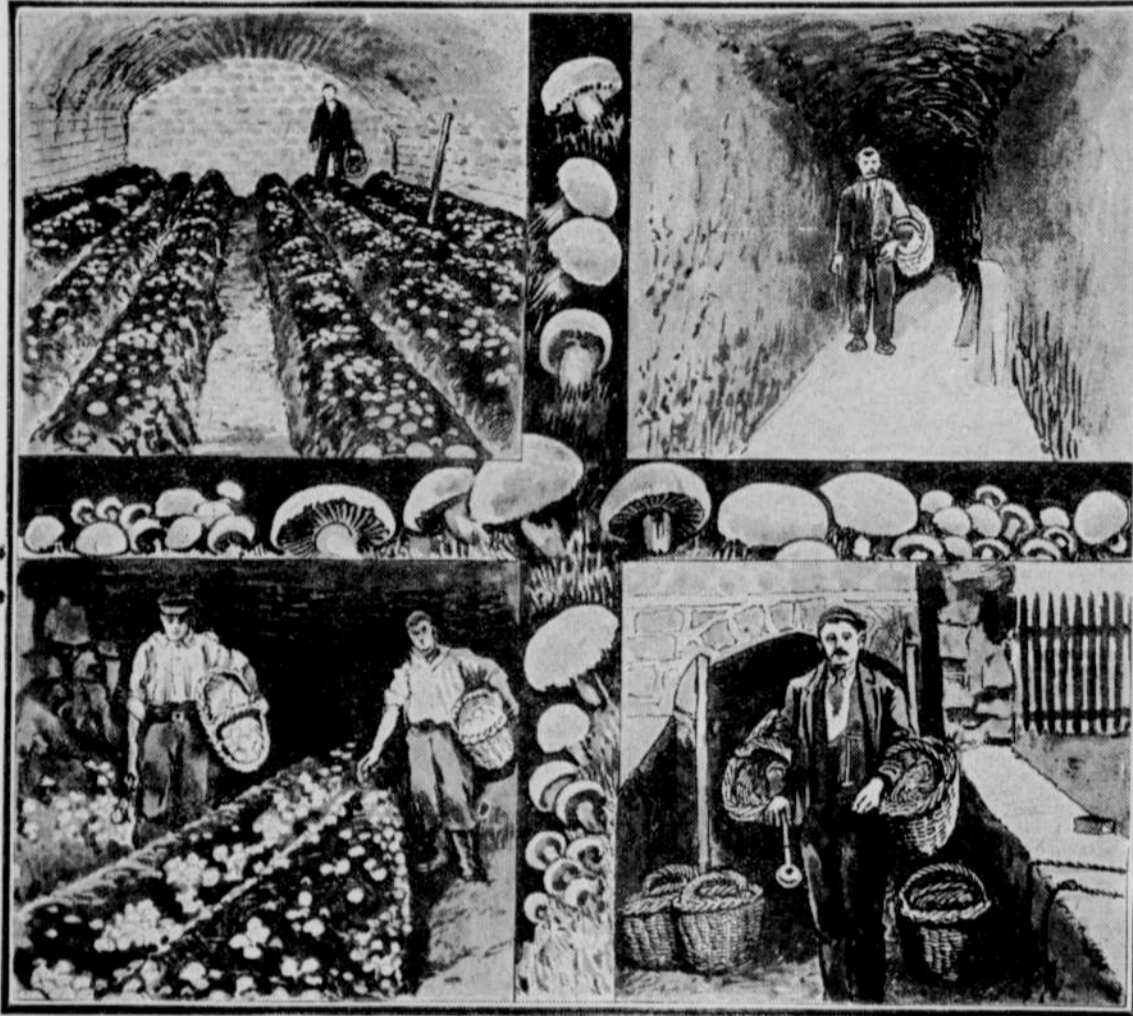
The mushroom bed is best prepared from horse manure that comes from well-bedded stables. Some straw is desirable, but a large percentage is objectionable and should be removed. The manure is cured by putting it under cover in piles three to four feet deep and of any length and width. It usually requires from ten to fifteen days to cure, but should not be put in the beds or boxes until the temperature has

cities, although many large growers continue to sell entirely by contract or by special orders to hotels and restaurants. The farmer, however, will find ready sale for any of the standard varieties. Should basement or cellar be unavailable, open-air culture may be resorted to, although this method



VENTILATOR OF PARISIAN MUSHROOM CAVE.

of growing is more difficult owing to the impossibility of maintaining even temperatures and controlling the moisture of the beds. The various bulletins



SCENES IN SOME OF THE GREAT MUSHROOM CAVES OF PARIS.

gone down to 100 degrees. A layer of the more straw portion of the manure is first put on the bottom and then thoroughly tramped or pounded down. Succeeding layers are then applied and each packed down until the bed is 10, 12 or 14 inches deep. Cultivated mushroom spawn, used for planting the beds, may be obtained from nearly any seedsman in the form of dried manure bricks. These should be broken up into pieces about 2 inches in diameter, placing each piece in the bed 8 to 10 inches apart by making a suitable hole 2 inches deep and pressing the spawn firmly into it. The hole should then be again filled with the manure and packed down firmly. The bed is covered loosely with excelsior or straw to retain the moisture and to

of the Department of Agriculture on mushroom growing may be obtained on application.

### TO MAKE PERFECT PORK.

Method of Slaughtering Which Insures Wholesome Meat.

A Kansas City man has discovered a novel method of preparing pork for the market in a way that will give to the people a meat which is perfectly wholesome. The theory is advanced that when a pig is sent to slaughter every squeal emitted in the process of slaughter is an audible announcement of a nervous reaction that effects every fiber of its body, producing such changes as will be detrimental to any one partaking of the flesh. The plan proposed is to drive the porker up an incline into a small pen. Just as he steps in the pen the platform tilts and runs him down a chute. At the end of this chute there is a bucket of slop or mash, or any other pig delicacy. The animal pokes his snout into the bucket when his whole head is caught in a trap and nitrous oxide renders him unconscious before he has time to let out even a little squeal. While the pig is in this state it is slaughtered. There is no excitement, no squeal and consequently no thermic changes.

### The Strenuous Life.

"Indeed, Mr. Hurryup, this is so unexpected. You embarrass me very much."  
Hurryup (glancing at the clock): "I'll give you one minute to recover from your embarrassment."

### When the Stork Flew Down.

"Mama, were you at home when I was born."  
"No, dear, I was at grandma's in the country."  
"Wasn't you awfully surprised when you heard about it?"

### At the Literary Tea.

Miss Sappho—"And you haven't said a word about my new poem."  
Mr. Cholly—"Aw beg you' pawdow-sweet, you know—weally, Miss Sappho, I didn't think you could write to such a—aw—depth of profundity."  
—Life.

### Too Much Yet Not Enough.

"What's the matter, Willie," asked grandma. "Did you eat too much dinner?"  
"No," sobbed the little fellow. "I'm just feeling bad 'cause I didn't eat enough to make me feel uncomfortable."

## CHEW FOODS THOROUGHLY.

GLADSTONE CHEWED MEAT THIRTY-TWO TIMES—OTHERS RECOMMEND FIFTY.

Certain Indigestion Preventive—Less Food Well Masticated Furnishes More Nourishment for Body—Saliva A Digestive.

Gladstone chewed every mouthful of meat he ate thirty-two times, but sixty times is not too often to chew a mouthful of solid food, according to a well-known specialist on stomach diseases, who declares that it is the one sure way to avoid indigestion, stomach and intestinal troubles.

"Each mouthful should be chewed from fifteen to sixty seconds, according to the kind of solids it contains," he says. "Every piece should be ground into fine pulp and thoroughly mixed with the saliva in the mouth before it is in a condition to be properly digested. Swallowing should be a slow, almost formal action, for if a bite is gulped down even after it has been well masticated it will cause distress by lodging in the thorax for a few seconds and bringing on a dull heaviness in the chest and stomach.

"Some foods should be more thoroughly masticated than others. For instance, beef, veal, mutton—in fact all heavy foods should be chewed for at least a minute, while soft cereals, mushes and well-cooked vegetables need not be held in the mouth for more than fifteen seconds before they will be ready to swallow. All liquids—tea, coffee, milk, wine, water—should be drunk slowly. Five minutes at least should be given over to the slow sipping of a cup of fluid, whether it is hot or cold, for a quantity suddenly put into the stomach is not healthful, and

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What is it that you most want or most value in your life? Isn't it good health or something you must have good health to get? What then is good health worth to you? What would you give to avoid a day's sickness, after the sickness had come? "An Ounce of Prevention is Worth a Pound of Cure." If you will read the health page in Maxwell's Homemaker Magazine every month for one year, and follow its teachings, you will never need to be sick or to pay a doctor's bill. Wouldn't it be worth ten dollars? Of course it would. We all know that. Well you can save \$9.90 by reading Maxwell's Homemaker Magazine for one year. The Magazine will cost you just ten cents. No more—No less!

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Cooking is one of the still unlearned powers that uplift and exalt our great people to progress.—Jennie C. Benefield

**And Then About Cooking.**

You've heard the old saying: "The Lord sends the food, and the Devil the cooks."

**Good Cooking Contributes to Good Health.**

As Shakespeare says: "Let good digestion wait on appetite, and health on both."

Did you ever hear of good digestion waiting on bad cooking? And the Home Cooking Department in Maxwell's Homemaker Magazine is an aid to the Good Health Department.

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son should be more thoroughly masticated." Chewing food thoroughly accomplishes the double results of masticating it so that the juices of the stomach can get at the individual particles and combining it with the saliva, which, in itself, is a powerful digestive agent.

**Worse Than Welch Rarebit.**

Microbes in the water,  
Microbes in the air,  
Microbes in the pie and cake,  
Microbes everywhere,  
Laying for us in the cold,  
Likewise in the heat;  
Every time we draw our breath  
Or stop to drink or eat.

In horrid consternation  
We vainly try to sleep;  
We know that through the casement  
The Microbes strive to creep;  
Though as creation's mighty lords  
We swagger and pretend,  
The Microbe is the only one  
Who triumphs in the end.

**No Four Flushing.**

The President stands pat on the American navy. And yet he maintains that it needs constant revision. Now let us take the problem home with us and work it out by the use of a little midnight Rockefeller.

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