

Women as Inventors



Drawing by Ray Walters

By ELMO SCOTT WATSON

THE other day an Illinois woman was granted a patent by the United States patent office for a "secret envelope," i. e. one which cannot be steamed open, its contents read and be sealed without detection of the fact that it has been tampered with. Immediately there were columns of newspaper publicity about the "woman inventor," as though woman in that role is unique.

To the average person she is, perhaps, for we commonly think of the inventive genius of woman in terms of the stock joke about her ability to do an innumerable number of things with a hairpin when necessity demands it. As a matter of fact, women inventors are becoming more numerous every year, as the records of the United States patent office will show. The women's bureau of the United States Department of Labor recently made an analysis of those records to determine woman's part in this age of invention and revealed what will be an astonishing fact to many persons—that at least 500 government patents a year are now granted to women inventors, and that more patents were granted to them in a recent ten-year period than were issued during the whole century ending in 1895.

Although the number of patents taken out by men is some 70 times as many as the number taken out by the other sex, the percentage increase for women from decade to decade has exceeded that of the men by as much as 300 per cent in some years. Another striking fact is that war seems to be a strong incentive to woman's producing new things. Before the Civil War about half a dozen patents a year were granted to women. During the war and in the years that followed the number of patents to women increased steadily, rising at times to more than 100 annually. The decade of 1857 to 1867 saw an increase of 677 per cent in the number of articles patented by women, as compared to 230 per cent increase for the men in the same period.

Although it is yet too early to predict what effect in this regard the World War will have, it is true that the number of patents taken out by women from 1918 to 1921 was 34 per cent higher than from 1912 to 1918.

From National Forests

A tremendous variety of products ranging from shoe pegs and saws for oil to saw logs, railroad ties, and naval stores, is made from timber supplied by the national forests of the East and South, says the forest service of the United States Department of Agriculture. Chestnut in the Appalachians furnishes telephone poles and extract wood. Beech, birch, and maple supply bobbins for the busy looms of

Famous Tournament

The originator of the idea of the tournament of roses in Pasadena was the late Prof. Charles Frederic Holder. The first tournament was held January 1, 1890, and it has been held the first of January ever since.

And Eating

New York health commissioner says the shaking of hands breeds infection. So does breathing. Can't something be done to stop it?—Philadelphia Ledger.

Even at that, the pre-World war period was one of great activity for women inventors, for in that time more than 5,000 patents were granted to women in ten selected years from 1905 to 1921, a number which far exceeds the total number granted them during the span of 105 years which ended in 1895.

As might be expected the majority of women's inventions are those which have to do with their household duties. But they are far from being limited to that and they cover a wide range of activity in 50 industries, coal mining through agricultural machinery, hospital equipment, manufacturing equipment, chemicals, artificial fuels, wood turning, even to submarine explosives! Before you exclaim over that list, however, consider a list of inventions by women which proves that the mothers of men, who are proverbially opposed to the war which robs them of their husbands and sons, are still doing their part to perpetuate its horrors. This list includes automatic pistols, bomb-launching apparatus, a cane gun, an incendiary ball, railway torpedoes, sights for guns, submarine mines and a top for powder cans.

Woman, the citizen, is responsible for inventions of voting booths, voting machines and a pocket ballot. Woman, the scientist, has given us new dyes and new dye bases, chemical treatment of oils for commercial purposes, artificial fuels, gas apparatus, air compressors, hoisting apparatus, reversible turbines, various steam and street railway necessities ranging from road bed and rails through rolling stock equipment to traffic signals and block systems.

Some of the reasons given by the women for their inventions are among the most interesting facts connected with their work. A large number of these reasons, of course, come under the proverbial head of "Invention, the mother of invention." One invention, made for this reason, turned its benefits in a direction curiously different from the original intention. A woman golf teacher, who had been much annoyed by the perverse habit of golf balls of becoming lodged in inaccessible places or dropping into streams, invented an adjustable rake to recover the errant balls. The wider usefulness of the rake was soon apparent, and gardeners now have a golf teacher to thank for making their work lighter.

A Texas woman who took out a patent for an improvement on a cultivator tongue, which lightened the burden of the "menfolks," said that "having been raised on a farm and seeing that there was needed improvement on cultivator tongues, I made up my mind to improve upon the old-style ones." A Minnesota woman invented a portable smoke house because as she explained it "As a farmer's wife, my duty was to cure meats for summer use and smoked meat is very much favored in my family. I tried to smoke mine without expense, and after I had completed this device I used it successfully for two years before I obtained a patent upon it."

It is in lightning her home duties that the American housewife finds her best reason for turning to invention. In this realm her new devices include alarms for cooking utensils, juice extractors, kettle protectors, stove-cleaning devices, waffle irons, ash cans, laundry equipment, brooms, racks, stovepipe cleaners, napkin holders, bed-airing devices, high chairs, bathroom fixtures, an automatic rocking chair fan, awnings, clothes containers and ant traps. Domestic difficulties sometimes result in invention, as witness the case of the woman who invented a pie-pan cover because of the "overflowing of juicy pies, the best of the pie is wasted, leaving the poorest part in the crust."

And these are only a few of the many new devices for which the world can thank the women. None of them is "revolutionary," perhaps, but for those whom they benefit by making life easier, that is immaterial. What if, so far, mere man has been responsible for all of the most important inventions, including those, such as the typewriter and the sewing machine, which have meant so much to women? (Incidentally, it might be added that Elias Howe's invention of the sewing machine was not greeted with unanimous enthusiasm by the women of the time. Was it "feminine inconsistency" which prompted some of them to opposition when the first sewing machines came upon the market because they "would take away the livelihood of the poor sewing women"?) This increase in woman's inventive activity, as shown by the records of the patent office, may be indicative of the increasing importance of women in every phase of life, and we may yet see some new device of world-wide and all-time significance conceived in a woman's mind and molded by a woman's hand.

Mangosteen a Rare Fruit

The mangosteen can only be grown where the temperature never drops below 35 degrees above zero. It is the size of a mandarin orange, deep purple externally, with a thick, woody rind. Within are several segments of snow-white pulp of delicate flavor. Because of its great delicacy and the difficulty of transporting it long distances, Queen Victoria, it is said, once offered a handsome reward to the first man who succeeded in placing a dish of mangosteens on her table at Buckingham palace, but the reward was never won.

President Football Coach

Few people probably associate a President of the United States with the business of coaching a football team, yet Woodrow Wilson, before he became President, coached both the Princeton and Wesleyan teams, according to an answered question in Liberty.

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crossing, traveling swiftly round the corner which led to the closed gates. At that precise moment an express train thundered through. Too late the driver of the car saw the danger. He tried to swerve, but a skid was the only result. With a loud crash he struck the last coach and the car crumpled up on the track. Silence for a few minutes. Then a voice: "Well, it's cured my hiccup, anyway"—and the driver crawled out of the wreck.—London Answers.

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STORY FROM THE START

Claude Melnoite Dabbs returns from New York to his general grocery in Peace Valley, Pa. With him comes Ned Carter, a stranger, whom Dabbs introduces to "Aunt Lyddy," his old housekeeper, as a nephew.

CHAPTER I—Continued

"Meaning well's one thing; doing well's another." But Aunt Lyddy smiled back at him so that all sting was taken from the cautious sentence. "Now, what you two rampaging idiots mean coming home at this hour of the night, springing a brand-new relation on me and with no notice to get his room ready for him?"

"Oh, go along, Aunt Lyddy! You can fix the room next to mine in a jiffy while Ned and I are finishing a bite of your lemon pie."

"Pie? Finishing my pie! Who said a word about pie? Who said I made any pie?"

"I did, I smell it." Aunt Lyddy laughed. "He smelled it. Boy," turning to Ned, "did you ever hear tell of a man like that? Set right down, both of you, and I'll have that pie brung on the table before you can get your hands out of your pockets."

"I don't think I can eat anything more," Ned began as she left the room. "Remember our dinner on the train."

"Jiminy! Even if you weren't hungry, could you resist that?" Two highly decorated plates, borne by Aunt Lyddy on an old japanned tray, held the largest, thickest and most delicious looking pieces of lemon meringue pie that Ned had ever seen.

Aunt Lyddy placed before them the remainder of the pie, a pitcher of cold milk, and a large wedge of cheese. With a hearty, "Enjoy yourselves, boys, while I fix Ned's room," she left them.

Presently Ned could hear her, as she tramped about the "next room to mine" presumably "fixing it." By that time he had tasted Aunt Lyddy's pie. Though she trod like an elephant, yea, even though she snored, he knew now that he would always love her.

"Good, ain't it, Ned?" Mr. Dabbs asked, as Ned took a second helping. Ned nodded, mentally noting that whatever he might have to suffer from country table manners in others, Mr. Dabbs would never offend.

"Aunt Lyddy likes you or she'd never put out the whole pie," Dabbs offered.

"How can you tell? You practically hurled me down her throat."

"Down Aunt Lyddy's throat! You don't know her. Why, I couldn't make that woman give you any more than a measly little bit of pie if she didn't cotton to you. Aunt Lyddy's a fine woman, but a terror for having her way. She isn't my own aunt. She's an old friend of my mother's and when Mom died, Aunt Lyddy made up her mind that I needed looking after and just came along and took possession. I couldn't get along without her now."

Aunt Lyddy returned, announcing that the room was ready and advised Ned to "turn in early." He followed her along the hall. The "room next mine" was a big, airy room, overlooking the garden at the side of the house and far removed from the noises of the shop. Its deep-seated window indicated the age of the house. The furniture was really old, consequently good and homelike, and the wall paper was a deep cream, with a little border of yellow roses.

The old four-poster looked inviting. Aunt Lyddy padded heavily away and Ned leaned out of the window, conscious of the soft, sweet, damp smell of a springtime garden.

As he left the window he was conscious of voices near him. But the room was empty, so was the hall outside his door. After a moment he concluded that the voices came through an old-fashioned hot-air register in the floor of his room. He heard Aunt Lyddy say:

"Claude Dabbs, I'm a dear lover of truth, and the truth I'll have out of you if it takes me all night. My usual hour for bed is 8:30 sharp, and here it is nearly ten, and gifts of amethyst brooches, though pretty and tastefully chosen I must say, won't blind me to my duty. I've ever been a kinda gardener for your home since your Mom died. Who's this young man?"

"Why, he's a young fellow I met up with in New York. He's been in the army—just discharged. The very name of Peace Valley sort of hypnotized him. He can't settle down to anything yet, so I asked him down here to look around and—"

"Suffering Saints!" Aunt Lyddy's voice rose to a sort of wail, then sank again. "Where'd you meet him?"

"Well—I was walking on Riverside drive and—"

"You picked him up! A bum! A park bum!" Aunt Lyddy exclaimed with conviction. "You probably treated him to that there awful smell suit."

Ned, his hand on the register waiting a fitting opportunity to close it

unheard, noted that she refused to listen to Claude's protests.

"I know you," Aunt Lyddy announced, "and nothing you do ought to surprise me now, but I declare by Peter and Paul it does at times. Well, don't say no more, nor fix up any pleasant kinda half-lies for me. You don't know nothing about him, and there were some awful bad characters got in the army. We're lucky if our throats ain't slit by morning. I'll lock my room and bolt it, tonight!"

Feeling that he had heard enough, Ned closed the register quietly, sure that the sound would be unnoticed as Aunt Lyddy trod heavily out into the hall.

CHAPTER II

Ned woke next morning to the sound of life and activity below stairs. His first thought was that he was back in camp again. Then he remembered. His watch told him it was seven. Thinking he would surprise Claude Dabbs by his early rising, Ned dressed leisurely and went downstairs.

Aunt Lyddy greeted him without enthusiasm, informing him dryly that Claude had been up for two hours.

"Suffering Saints, you're more than Welcomes." He was at that moment superintending the unloading of the new Irish potatoes.

The food was delicious, and Aunt Lyddy waited and watched over him at the breakfast table, anticipating his wants as though he were a small boy; yet Ned felt that he was delaying the important affairs of the household.

Still with the air that he was company, Aunt Lyddy informed him: "Claude said to take the car and sail around, or do anything you're a mind to do."

"Thanks, Aunt Lyddy, but I think I'll help Uncle Claude in the shop." Aunt Lyddy's eyes showed surprise and approval.

"Claude Dabbs could do with a little help," she announced. "There's a many leans on Claude, and but few as offers a shoulder themselves occasionally. No, that Claude needs anything to lean on, but the fact that a shoulder is handy kinda keeps a man from feeling lonely. I'm going to say this—you don't look as though you needed any special help to get along in this world. Maybe you do. I ain't inquiring. All I'm saying is that never, since I've known him, has Claude Dabbs shown such admiration for any living soul as I've seen him show for you. Well," her eyes widened, expressing what she was unable to put into words, "let me see you worthy, young man. Let me see you worthy."

"Aunt Lyddy," Ned put down his knife and fork. "I don't know that I am exactly worthy, but I will be frank. Uncle Claude can't begin to have the

admiration for me that I have for him. Why, he saved my pocketbook, possibly my life, the other night. I was in the park just off Riverside drive, weary of everything. I'd stretched myself along the bench to look at the stars and think out what I should do with my life, when along came Claude Dabbs and sat down on me."

Aunt Lyddy giggled in a peculiarly young and girlish way.

"Of course that went a long way toward making us friendly. While we were snattering along talking we were ordered to put up our hands. If my experience has taught me anything, it is to be leery of pistols in unknown hands. Mine went up at once. But C. M. stumbled accidentally, I thought, which brought him a few steps in front of me, and nearer the other fellow. Of course, C. M.'s hands went up as he recovered his balance. What I didn't notice, nor did the other fellow until it was too late, was that one of his feet went up, too. First thing I knew the other man was down and Claude was sitting on him. I got there, "And by Peter and Paul, I'll wager Claude never called a policeman!" broke in Aunt Lyddy.

Ned shook his head. "We just took his pistol and blackjack and left him. He was knocked out—stunned by the fall."

They surveyed each other, smiling. "I suppose you'd like to know a little more about me," Ned said tentatively.

"I kin wait till you tell Claude," "Claude knows something, and you'll be miserable until you know as much, won't you?"

Again Aunt Lyddy gave her peculiar giggle, and settled back in her chair. "Get it off'n your chest, son, and don't smooth over nothing for me."

"I drove an ambulance for six months before this country got into the fight," Ned began. "I was hurt a little and had to come home. Tried for a commission in our army when I got well. Had to throw over everything to do it. Family and—girl. My girl was in with a professional pacifist bunch. Da—confound them all, they acted as though the rest of us liked war, and had arranged it for our own amusement."

"Well, after I got my commission I was ordered down South to one of our camps. I went, thinking I was on my way to France. When I got there, they told me my resignation had been accepted. I swore by everything holy and unholy that I had never resigned. They listened, bored but patient, and repeated that my resignation had been accepted. I'd better see Washington. I was told.

"I went to Washington. They told me there my resignation had been accepted. I told them I'd never resigned. They listened and said 'maybe not,' but the War department was too busy to bother about my case. Just then, or to correct any mistake, if there was a mistake. They advised me tenderly to go home like a good boy, and, maybe some time later, they'd look me up. I went swearing. I had no home to go to. So I enlisted in a New York regiment and was discharged some two or three weeks ago."

"Satan's trumpets!" Aunt Lyddy exclaimed. "The armistice signed in November and they kept you in all this time. Well, you certainly got the rough end of the stick. As for that girl, what I had her within arm's reach, I'd shake a little sense into her."

"Oh, she's all right," Ned said a little awkwardly. "Don't make the mistake of treating me like a returned hero, because I never got over. I was railroaded to an O. T. C., and kept there. I never got over."

"You can understand, can't you, why the very name of Peace Valley drew me like a charm, and why I forgave my coming here in this way?"

"Suffering Saints! You're more'n welcome to stay, and as far as I'm concerned—" Aunt Lyddy broke off suddenly, and trod heavily kitchenward, for Claude Dabbs had entered from the office.

"Morning. It does me good to see you sitting there as though you were home."

"I feel at home," Ned assured him. "Hope you really do." Claude's scrutiny was wistful but understanding. "What's the program? Want one of the cars?"

"The cars! Why, C. M., for a simple country grocer, aren't you rather 'laying it on'?" Claude hissed. "Old Man Wolf hasn't knocked at the grocery door for a number of years—a considerable number. But what good's my money to me, if no one shares it?"

Ned rose and put a hand on Claude's shoulder. "Did you adopt me to squander your surplus? I thought you were going to make me work!"

Does anything about our young friend, Ned Carter, strike you as peculiar? He seems all right, yet—

Too Much "Acid?" Excess Uric Acid Gives Rise to Many Unpleasant Troubles. AUTHORITIES agree that an excess of uric acid is primarily due to faulty kidney action. Retention of this toxic material often makes its presence felt by sore, painful joints, a tired, languid feeling and, sometimes, toxic backache and headaches. That the kidneys are functioning properly is often shown by scanty or burning passages of secretions. Thousands assist their kidneys at such times by the use of Doan's Pills—a stimulant diuretic. Doan's are recommended by many local people. Ask your neighbor!

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Hip O-Lite
"Gap, you ort to get for the smaller children some sort of toys that can't break up," said Mrs. Johnson. "Um-huh!" replied Gap Johnson of Rumpus Ridge. "I sorter 'lowed to go around to the junkyard next time I'm in town, and see if I can't find a few second-hand axels for 'em. What do you think of the idy?—Kansas City Star.

Minority Rule
One man out of every three is now a motorist, leaving the other two to wish they had been born kangaroos.—Boston Transcript.
Many a woman doesn't know what trouble is till she has married the man of her choice.

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If your druggist is out of the "Medical Discovery" or "Prescription," send 65 cents to Dr. Pierce, Buffalo, N. Y., for a package of the tablets.
W. N. U., San Francisco, No. 4-1927.

No Possible Ruling for Hours of Sleep

The need for sleep varies from one person to another, children whose growth is very rapid requiring more sleep than the average child of the same age, says Dr. Max Slesman in Hygeia Magazine. Girls, especially during maturation, require more sleep than boys. More sleep is needed in winter than in summer. The child in primary grades needs a minimum of twelve hours of sleep. No child between twelve and fourteen years should have less than nine and one-half hours of sleep.

The quality of sleep is also important. Noise, excitement, irritating music and strenuous play before retiring induce a state of emotional fatigue which interferes with falling asleep and is associated with fear and night terrors. Crowded sleeping quarters and hot ventilation are also disturbing to sleep.

If two children must share one room, a separate bed should be provided for each of them. They should retire at the same time, or else care must be taken so that the one retiring later does not disturb the sleeping one. Im-

proper food, especially if eaten a short time before going to bed, robs many a child of his needed sleep.

Trombone Long Popular

The trombone has been recognized as a meritorious musical instrument for centuries. The Romans knew it as the tuba dentilis, and there is some evidence that the trombone was known to the ancient Greeks. The hands that played at the fetes of the dogs of Venice when that city was queen of the Adriatic, consisted of trombones only, according to some historians. It is also on record that there were ten trombones in the state band of Henry VIII and six in the state bands of Queen Mary and Queen Elizabeth. Really eminent musicians have some- times played the trombone. Sir George Macfarlane preferred it to all other instruments in the orchestra and frequently played it at concerts conducted by Sir Michael Costa. It also was an instrument in which Alexander II of Russia took great delight.—Vancouver Province.