

Good Roads in Prussia.

There is in Prussia and in the other States a corps of educated, highly trained State employes who have made roads their profession, and they know their business. Constant repair is one main reason for the condition of and attached to the wall of a building, the German roads. Comprehensive and minute regulations are strictly en- wheel on a vertical shaft with a chimforced. In some provinces the village mayor is held strictly responsible for the good condition of all the roads in

his district except the state roads. The work of repair is constant and the labor is constantly supervised.

Another main reason why the builting of roads is carried out honestly is the virtual absence of temptation to do otherwise. The laws are very strict and violations are severely punished by fine and imprisonment.

There are three kinds of highwaysthe provincial, the Kries and the Gemeinde Wege. The former two are those whose building and maintenance rests on the shoulders of the provincial or district representative bodies. All the rest are communal or private roads, and the same strict regulations apply to them as to the provincial roads.

In Prussia alone \$11,000,000 per annum is paid out of the public funds for the maintenance of roads, and this does not include the moneys expended by individual communes and by private companies and individuals.

it is forbidden to use them for vehicles with protruding wheel nails, screws, spokes or otherwise objectionable gear. kind. Heavy loads may not pass over the roads without special permission.

The tolls exacted on the German roads, though at one time generally imposed, are now small and infrequent. As the maintenance of the roads is fix- | the British association, gave the results ed by specific laws and regulations, so of his investigations into this subject. new roads.

a flange on the can turning a friction ney cleaner at the top. In a handy patch for pneumatic tires

a flexible band is provided with a curved plate at one end and a link at the other end, which hooks on the plate after it is wound around the tire, the plate being sprung downward against the rim to lock the patch in

position. Fires can be kindled automatically by a new apparatus, which consists of a lamp, to be placed under the fire-box

grandmother into the happy comoina-

tion, "Max O'Rell;" Cincinnatus H

Miller, when he began to write peetry.

wisely concluded that it would seem

more like real poetry if he signed his

RECENT INVENTIONS.

To close fire shutters and doors £ato-

matically they are mounted on 2% in-

clined track to slide shut as soor, as a

fusible cord over the door is blaned.

the cord allowing a weight to drop on

Oil cans are being made of circular

shape to be mounted on a central pivot

the latch and release the door.

first name "Joaquin."

and carrying a wick tube, which holds a wick and match, the latter being ignited by a spring striker released by the clock mechanism.

Sudden jerks and starts of a horse are prevented from yanking riders in a carriage by the use of a spring back rest, which is hinged to the seat at the bottom, the top being supported by coiled springs mounted on rods in cyl-

inders at the ends of the seat. Stair carpet can be securely fastened without breaking the fabric by using

a newly designed bracket, which is On the highest grade of public roads | formed of a metal bar having a hinged piece adjustably attached to its center, with the upper end of the latter to be inserted under the edge of the stair The horseshoes must be of a particular above, to lock the bar in a vertical position against the stair riser.

> Length of Thought. How long does it take a man to think? Prof. Richet, at the recent meeting of

was one-eleventh of a second. There

are various ways of arriving at conclus

one ear than with both. Thus the sep-

arateness of the clicks of a revolving-

toothed wheel was noted by one ob-

occurred oftener than fifteen times a

tric spark of an induction coil was dis-

tinguished with one ear when the rate

was as high as 500 to the second. Sight

is much less keen than hearing in dis-

rapidly than we can count, so that if a

clock-clicking movement runs faster

A Hunter's Trick.

John Hook, a veteran huntsman o

Hampshire County, West Virginia, has a

the nearest magistrate and informed on

himself, who imposed a fine of \$20 for

violating the game law, which implicit-

ly implies that no deer shall be killed

in that State until Oct. 15, 1901. Hook's

save half the fine, which the justice re-

fused to allow. He is now suing the

squire. The deer weighed 204 pounds,

and Hook thought it would be cheap

meat if he could get half the fine, as

the law states that half the fine shall

go to the informer .- New York Journal,

A Han ly Tally Register.

The visitor to any public place may

easily be counted without attracting

attention by means of a tally register,

a little contrivance about the size of a

big watch, which can be carried in the

palm of the hand, out of sight, and is

operated by pressing upon a little at-

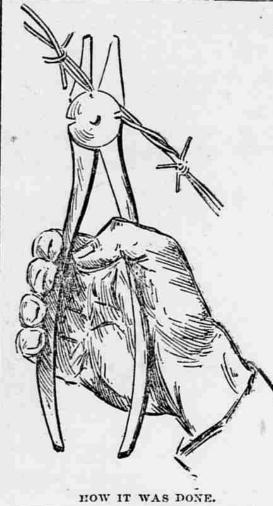
tachment projecting at the side. Every

Mining and Scientific Press.

SCLDIERS USED PLIERS.

Before Them the Spaniards' Barbece Wires Fences Lost Their Terrors. American ingenuity co-operated with American bravery in providing a unique weapon by the use of which the much-feared barbed-wire fence, which surrounded Santiago, lost the greater | Something that Will "terest the Japart of its terrors.

This effective weapon is known to the mechanical world as plicrs. Five thousand of these wire cutters were provided the American army before the battle of Santiago, and when the time came to attack the Spanish stronghold the advance guard wielded 10-inch nippers



in addition to its other arms. The T ers were provided with three sets knives, any one of which was capalie of severing several strands of wire at a time. The five thousand of them were supplied Uncle Sam on rush orders by five big New York firms.

Strange to say, the barbed wire with which the Spaniards constructed supposedly invincible barriers around their Cuban strongholds was originally protoo are the conditions of constructing | He found that by mentally running up | vided by United States manufacturers, the notes of the musical scale for one and United States manufacturers afor more octaves and then dividing the Frward provided instruments with

CHILDREN'S COLUMN.

DEPARTMENT FOR LITTLE BOYS AND GIRLS.

venile Members of Every Household -Quaint Actions and Bright Sayings of Many Cute and Cunning Children.

Hold on Boys.

Hold on to virtue-it is above all price to you at all times and places. Hold on to your good character, for It is and ever will be your best wealth, Hold on to truth, for it will serve you well, and do you good throughout eternity. Hold on to your tongue when you are

just ready to swear, lie, or speak harshly. Hold on to your temper when you are angry, excited, or imposed upon, or others are angry with you. Hold on to your good name at all

times, for it is of more value than gold, high places, or fashionable attire. Held on to your hand when you are on the point of punching, scratching, stealing, or doing any improper act. Hold on to your heart when evil as sociates seek your company, and invite you to join in their mirth, games and revelry. Hold on to your foot when you are

on the point of kicking, running off from study, or pursuing the path of error, shame or crime;

The Queen Bumble-Bee. The length of life of a queen bumblebee is probably little more than a year at most. Here is one reason for this belief. She hatches among the late broods of summer, and soon after leaves the nest, leading a vagabond existence, night and day, among the autumn flowers. The winter she passes

in an earth-burrow dug by herself, and unaided establishes a colony in the spring. These combined per is of fall and spring require the daily use of her frail wings in the field at least four months. Now, we know that the wings of the worker honey-bee wear out in less than half that time; also that the old queens who take to the field after

with new wing cells, as it supplies

birds with new wing feathers. So the

loss of the power of flight at this sea-

son of the year to the queen bumble-bee

The Boomerang

used by savage races in war or in hunt-

ing is the boomerang of the aborigines

of Australia. It is of hard wood, bent

in a curve, and is from two feet to two

feet nine inches long by from two to

three inches broad. It has one side

convex, the other flat, with a sharp

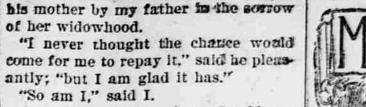
edge along the convexity of the curve.

The curve varies greatly in different

instruments. When to be thrown, it is

One of the most remarkable weapons

means the loss of life.-St. Nicholas.



As soon as I got ashore, I told my father what had bappened. "Ah," said he, "see how a bit of kindness lives! Now he has passed it on to you. Remember, if you meet anybody that needs a friendly hand, you must pass it on to them."

Years had gone by. I had grown up and quite forgotten it all, until one day I had gone to the station of one of our main lines. I was just going to take my ticket, when I saw a little lad crying, a thorough gentlemen he was, trying to keep back the troublesome tears as he pleaded with the booking clerk. "What is the matter, my lad?" I asked.

"If you please, sir, I haven't money enough to pay my fare. I have all but a few pence, and I tell the clerk if he will trust me I will be sure to pay him."

Instantly it flashed upon me, the forgotten story of long ago. Here, then was my chance to pass it on. I gave him the sum needed, and then got into the carriage with him. Then I told the little fellow the story of long ago and of the steward's kindness to me. "Now, to-day," I said, "I pass it on to you, and remember, if you meet with any one who needs a kindly hand, you must pass it on to them,"

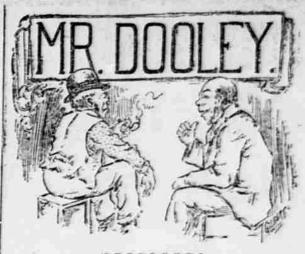
"I will, sir, I will," cried the lad, as he took my hand, and his eyes flashed with earnestness.

"I am sure you will," I answered. I reached my destination, and left my little friend. The last sign I had of him was the handkerchief fluttering from the window of the carriage, as if to say: "It is all right, sir; I will pass it on."-Home and School Visitor.

Loyal to the Union.

Labor unions are perhaps a little strict about their rules, but the innocent reader is under no obligation to accept as literal truth the following story printed by the Cleveland Leader. The best newspapers will sometimes exaggerate.

There was trouble at the Maginnises the nest breaks up in August frequent- night before last. Mrs. Maginnis had ly have tattered wings and soon disap- just made a fine batch of "ketchup," pear. Nature does not supply insects which she left in the kitchen.



Dooley in Doubt. "I know what I'd do if I was Mack," said Mr. Hennessy. "I'd hist a flag over th' Ph'lippeens an' I'd take in th' whole

lot iv thim." "An' yet," said Mr. Dooley, "'tis not more thin two months since ye larned whether they were islands or canned goods. Ye'er back yard is so small that ye'er cow can't turn r-round without buttin' th' woodshed off th' premises, an' ye wudden't go out to th' stock yards without takin' out a policy on ye'er life. Suppose ye was stradin' at th' corner iv State sthreet an' Archey r-road, wud ye know what car to take to get to th' Ph'lippeens? If ye'er son Packy was to ask ye where th' Ph'lippeens is cud ye give him anny good idea whether they was in Rooshia or ins' wist iv th' thracks?"

"Mebbe I'cudden't," said Mr. Hennessy, haughtily, "but Fm f'r takin' thim in annyhow."

"So might I be;" said Mr. Dooley, "if I cud on'y getime mind on it. Wan iv the worst things about this here war is th' way it's makin' puzzles f'r our poor, tired heads. White I wint into it I though+ all I'd have to do was to set up here with a good tin-cint see-gar in me teeth an' toss dinnymite bombs into th' hated city iv Havana. But look at me new. Th' war is still goin' on an' ivery night I'm askin' mesilf will I annex Cubia or lave it to th' Cubians? Will I take Porter Ricky or put it by? An' what shud I do with th' Ph'lippeens? Oh, what shud I do with thim? I can't annex thim because I don't know where they ar-re.. I can't let go it thim because some wan else'll take thim if I do. They are eight thousan' iv thim islands with a popy stion iv wan hundhred millyon naked savages, an' me bedroom's crowded now with me an' th' bed, How can I take thim in an' how on earth am I goin' to cover th' naisedness iv thim savages with me wan soot iv clothes? An' yit 'twoud break me heart to think iv givin' people I niver see or heerd tell iv back to other people I don't know.

"It ain't that I'm afraid iv not doin' th'

Road Crnamentation.

More attention is being paid recently | thought of, the time taken for each note to the question of road ornamentation. The fact is that our streets should present the aspects of public parks, extending everywhere about the country. Instead of throwing our brush and rubbish there, we should plant our best shrubs and flowers. In many cases nature provides for this aspect of affairs with brooks and wild flowers. These should be preserved in their natural beauty. We know a few towns where the custom is well established of extending lawns down to the driveway. This custom adds not only to the pleasure of the traveler, but to the culture and civilization of the common teamsters. Some of the European countries have carried this custom much farther than Americans. If a man wishes to make his place attractive for any purpose, even for sale, he should make the front of it charming to the eye.-Farm and Fireside.

Fad Roads Retard Progress. There is simple common sense for the good roads question. Get good men and make the money reach the roads. As things are at present organizedor disorganized-in Maryland not one dollar in four or five appropriated for roads reaches the work on the roads. This fact is known. It is admitted. It is one of the chief scandals of the State. Now the time has come for the money to be honestly used. There should be new laws, new regulations new men and new methods. The lack of good roads is keeping down the price of every farm in the State, costing every farmer more to get his products to market, keeping back that progress which would come if we had better highways .- Baltimore American.

Reasons for Road Improvement. The three most important reasons for road improvement are, first, the desirability of reducing the cost of hauling; second, the importance of making most object in informing on himself was to of our roads fit for pleasure driving, thereby attracting to the rural districts in summer thousands of people who create a local market for various farm products; third, the economic principle of preventing the great waste of labor which now is fruitlessly expended in making bad roads .- Professor F. J. H. Merrill.

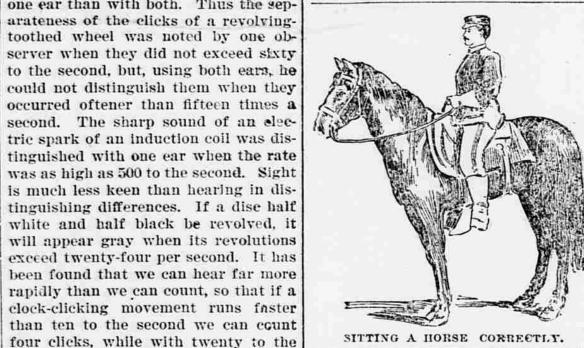
Pen Names.

For various reasons an author may not wish to sign his name to his first literary attempts. He may feel a little shy about coming before the public in propria persona, he may prefer to remain unknown, he may think that it is easier to win notoriety for an allitera- pressure counts one on the dials of the

which to destroy that same barbed total time by the number of notes wire.

SITTING A HORSE CORRECTLY. How the Rider Is Directed to Acquire

sions as to the amount of time necessary for realizing any physical sensa-Graceful Ease in the Saddle. tion or mental impression. If the skin The rider must sit in the middle of the be touched repeatedly wite light blows saddle seat as flat as possible; weight from a small hammer, one may, acordof body evenly distributed between the ing to Prof. Richet, distinguish the fact | two points of the pelvis, or "sitting that the blows are separate and not boxes," as the Germans call them. Head continuous pressure when they follow and body erect and square to the front, one another as frequently as 1,000 a chest out and back straight. The legs second. The smallest intervals of sound should be stretched by their weight can be much better distinguished with alone and allowed to fall nturally. The



second we can count two of them .inner surface of the thighs and knees is tightly pressed against the horse with an equal pressure, and lies as flat as possible. The thigh should be turned in the hip joint to widen the crotch. The legs from the knees down fall natunovel case that is puzzling a justice of :ally, the upper portion being close to the peace. While hunting Hook could the horse, but not clinging to him; the not resist the temptation to kill a deer grip is taken from the hip to the knee. that crossed his path. He then went to

SPANISH SOLDIERS' FUN.

Don Is Said to Be Witty and Fuli of Animal Spirits.

The Spanish soldier is not as mercurial as the French, but he is witty and full of animal spirits. He needs both as well as the dash of fatalism which



ON BOARD THE JOTA.

When Mr. Maginnis got home he went into the kitchen for a drink of water, and presently several "dull thuds" were heard in the back yard. Loud talking between Mr. and Mrs Maginnis followed, and at one time the sounds indicated that something

like a fight was in progress. When Mr. Maginnis-fared forth, next morning, one of his neighbors asked him if he and his wife had been having an engagement with burglass. "Not a bit av it," said Mr. Magin-

nis. "I trowed Mrs. Maginnis' ketchup out o' the house, so I did." "Why did you do that?" he was ask-

"Why did I do it? Suy, I'm a union mon."

"Well, what has the union to do with your wife's ketchup?"

"If I had 'a' left that ketchup in me house I would have been expelled," said Mr. Maginnis, "How so?"

"Why: there it was 10 o'clock, and the katchup, workin' over time. The mion don't allow that. Not a bit av

Useless

Binks was a good-hearted fellow, but a hopeless incoriate. When not in his cups he was a most exemplary citizen. but at intervals of a few weeks he was wont to indulge in a prolonged "spree," during which he would squander his money, reel about the streets, and conduct himself in a disgraceful manner

generally. Then he would "sober up," suffer tortures of remorse, promise better behavior for the future, be a pattern of ing round and round, and describing a | industry and sobriety for another pecurved line of progress till it reaches | riod, and in some unguarded moment fall again from his high estate, and make a beast of himself in the old way. On one occasion, when he was undergoing the sobering process and was pouring his sorrows into the sympathetic ear of a friend, the latter interrupted him.

"Binks," he said, "why don't you end low, go and jump off the pier."

"It wouldn't do any good," tearfully answered Binks. "I-I can swim!"-Youth's Companion.

How Edison Proposed.

The idea of the great electrician Edison marrying was first suggested by an intimate friend, of whom Edison timidly inquired who he should marry. The friend somewhat testily replied, "Any one." But Edison was not without sentiment when the time came. around the boat with his horns; but I town in which I dwelt. I arrived at One day as he stood behind the chair held the boat down.

r-right thing in th' end, Hinnissy, Some mornin' I'll wake up an' know jus' what to do, an' that I'll do. But 'tis th' annoyance iv th' manetime. Fve been rereadin' about th' counthry. 'Tis over beyant ye'er left shoulder whin ye'er facin' east. Jus' throw ye'er tham's back an' ye have it as ac'rate as anny man in town. "Tis farther thin Boohigarya an' not so far as Blewchoochoo. It's near Chiny an' it's not so near, an' if a man was to bore a well through fr'm Goshen, Indianny, he might sthrike it, an' thin again he might not. It's a poverty-sthricken counthry, full iv goold an' precious stones, where th' people can pick dinner off th' threes an' ar-re starvin' because they have no step-ladders. Th' inhabitants is mostly naggurs an' Chinnymen, peaceful, industhrus an' law-abidin', but savage an' bloodthirsty in their methods. They wear no clothes except what they have on, an' each woman has five husbands an' each man has five wives. 'Th' women ar-re hurried an' incomplete in their diress. I see a pitcher iv wan th' other day with nawthin' on her but a basket iv cocoanuts an' a hoop-skirt. They're no prudes. We import juke, hemp, eigar wrappers, sugar an' fairy tales frim th' Ph'lippeens, an' export six-inch shells an' th' like.

"I l'arned all this fr'm th' pa-apers, an' know 'tis sthraight. An' yet, Hinnissy, ... I dinnow what to do about th' Ph'lippeens. An' I'm all alone in th' wurruld, Iv'rybody else has made up his mind.

"Hang on to thim," said Mr. Hennessy, stoutly. "What we've got we must hold." "Well," said: Mr. Dooley, "if I was-Mack I'd l'ave it to George. I'd say: George,' I'd say, 'if ye'er f'r hangin' on, hang on it is. If ye say l'ave go, I dhrew. thim.' 'Twas George won thim with th' shells, an' th' question's up to him."- Chiecago Journal.

Cheating a Buil.

A Connecticut sportsman relates in Forest and Stream an adventure which must have been exciting enough to save his day from monotony: I was hauling my boat across Eley's meadow to the creek-a hard pull, with decoys, gun and ammunition. I was, about half-way across, and had sat down to rest, when I noticed that one of a large herds of cattle was coming my way. I looked again. It was a big bull and evidently meant business.

I knew he would overtake me if I ran, so I turned over my beat and crawled under it. The bull seemed surprised that I had disappeared, and after sniffing around a while went off. I waited until he was nearly up with the cattle, and then started again. But the old fellow was no fool; he had his eye on me, and I had hardly started before he came back on the run.

To do my best, I couldn't make the creek, so under the boat I went again. This time the bull was mad. He bellowed and pawed, and tore up the sod

TYPES OF TITE FOOMER'NG. side down, it is then thrown directly onward with a strong quick fling, as if

to hit some one forty yards in advance. The hand is drawn back at the same time, with a movement like that in the "screw-back" stroke at billiards. The missile slowly ascends in the air, whirla considerable height, when it begins

to retrograde, and finally, if thrown with sufficient force, falls eight or ten yards behind the thrower, or it may fall near him. This surprising motion is produced by the bulged side of the missile. The air implnging thereon

lifts the instrument in the air, exactly as by hitting the oblique bars in a all this? The next time you feel that windmill, it forces it to go round. It intolerable craving coming on, old felshould be added that the path of the boomerang can be varied by the will of the thrower, and that the sweep of no two boomerangs exactly agrees. The force with which it flies is great; the

Rev. J. G. Wood has seen a dog killed on the spot, and nearly cut in two by the stroke .- Family Herald.

Pass It On. Once when I was a schoolboy, going home for the holidays, I had a long way to go to reach the far-away little

taken in the hand by the handle (which has cross cuts on it) and held up at arm's length over the shoulder. With the convex edge forward and the flat It!"

tive or catchy sobriquet, or he may feel	instrument, which records up to 1,000.		Bristol, and got on board the steamer	of a Miss Stillwell, a telegraph opera-	Finally, when I was getting tired, he
that in assuming a new name it is	Then the tally man scores one and re-	comes with his Moerish blood, for			
easier for him to assume the character	sets the machine and begins anew, or	many leave spain, out lew return. The	fare; and, that being settled, I thought	tor in his employ, he was not a little surprised when she suddenly turned	away that this time I made the
in which he wishes to appear before the	starts with another machine already	illustration, reproduced from the Lon-	in my innocence I had paid for every-	surprised when she suddenly turned	away that this time I made the creek and launched my boat.
public. Thackeray used several names,	set. The tally register is not new. It	fon Graphic, shows a typical scene on	thing in the way of meals. I had what	round and said:	and ladnened my boat.
because he wrote for different nublica.	has long been used also in keeping tally.	board the Jota, a ship carrying re-en-	I wanted as long as we were in smooth	Mr. Edison, I can always tell when	Natural Mistake.
tions in different styles. He signed	in the shipment or receipt of merchan-	forcements to Manila.	maken When come the neugh Atlantia	you are benned or near me." -Edison	Defective vision a timeset by
hunself sometimes "John Corks," some-	dise.		and the need of nothing more. I had	fronted the young lady, and, looking	tume and an ambiguous name-these
times "The Proser," or a "Traveler in		Old-fime Weather Indications.	been lying in my berth for hours,	at net maculy, salu.	many the structure of
London." For a certain set of papers	To Clean a Mackintosh.	The earliest weather vanes in New	mustahadly ill and past againg for any	The been thinking considerably	topial comoder
he chose the name of "James Yellow-	If you wish to clean a mackintosh,	England were cocks, trumpeters, sim-	thing when there came the stoward	about you of fate, and if you are will-	"Mr. Brownsonby," said the host at
	cloak lay it flat on a board or table,	ple plates, disks and arrows, and, not	and stood beside me.	ing to marry me I would like to marry	in proving reception sale the nest at
plush," for another that of "Michael	take brush used for scrubbing clothes,	to be overlooked, the sacred codfish.	and stood deside me.	mon 17	in evening reception, presenting to the
Angelo Titmarsh." The last was sug-	some lukewarm water in a basin and	In Eoston cocks or broad arrows were	"Your bill, sir," said he, holding out	The young lady said she would talk	principal guest a rather strong-minded
gested by the nickname given him by	some plain vellow soap. Thoroughly	on all the old churches. On the Prov-	a piece of paper.	the matter over with her mother. The	young woman who wore a collar, neck-
a friend in allusion to the fact that he,	brush the cloak, both right and wrong	ince house, where Gen. Gage had his	I have no money, said I, in my	result was their marriage, and a very	lie and shirt front of decidedly mascu-
like the great artist, had a broken nose.	sidos until all dirty marks disappear:	headquarters, there was a statue of an	wietcheuness.	happy one it proved to be.	line appearance, "let me introduce
"Mark Twain" was originally the pen	in the second line in Million and a contra	I Indian with drawn bow and arrow.	"Then I shall keep your luggage.	happy one of proved to be	Miss Terhune."
name of Capt. Isaiah Sellers, who used	of cold water and hang up to dry but	ready to shoot. Prints of the city of	What is your name and address?" I	Devotional Oxen.	Mr. Brownsonby, who was somewhat
to write river news over it. When he	not noon o fino	I Now Amsterdam as it wis in the 2000	tore mini moraney no coor on eno cap	In many parts of Germany it is be-	cear-sighted, turned to acknowledge
died, Mr. Clemens appropriated it to	not near a fire.	old Dutch days show the churches and	he wore, with the gilt band about it,	lieved that oxen fall on their knees in	the introduction.
his own use, with what success we	Nearly all the men have quit drink-	many of the houses surmonuted by the	and held out his hand. "I should like	the stalls of the moment of Christian	"Ah, Mr. Hune!" he said, extending
know. Miss Alice French chose the	ing. Only a few foolish boys have the	tilded cock or the plain arrow.	to shake hands with you?" he said.	nativity.	his hand cordially. "Glad to see you
very attractive name, "Octave Thand,"	drink habit of late years.	inded cock of the plant artent	I gave him my hand, and shook his	nativity.	sir."-Youth's Companion.
by chance; M. Paul Blouet combined	No. 10 March 1997 August and the second s	Every man carries a penknife, but	as well as I could Then come the or	It's surprising how much a woman	The second
the first name of his French grand-	We can tell whether a man is lazy by	not one man in twenty carries a good	planation-how that some years before	can say about herself without telling	There is \$600,600,600 more invested in British railroads than the national debt
father and the last name of his Irish	the way he leans on a courter or table.	sne.	some little kindness had been shown	anything.	British railroads than the national debt
Province and the second s			,		Aniounts to.